



**CONESTOGA-ROVERS
& ASSOCIATES**

4050 East Cotton Center Boulevard, Suite 49, Phoenix, Arizona 85040
Telephone: 602-749-9400 Facsimile: 602-749-9500
www.CRAworld.com

August 31, 2011

Reference No. 006029-50

Mr. Regan S. Williams
State Project Coordinator
Ohio EPA
Division of Emergency & Remedial Response
2110 East Aurora Road
Twinsburg, Ohio 44087

Dear Mr. Williams:

Re: April 2011 Groundwater Monitoring
Summit National Superfund Site
Deerfield, Ohio

US EPA RECORDS CENTER REGION 5



537270

In accordance with the Consent Decree and Statement of Work (SOW) requirements for the Summit National Superfund Site (Site) in Deerfield, Ohio, the Summit National Facility Trust (SNFT) herewith submits two copies of the results of the April 2011 annual groundwater monitoring event at the Site, in accordance with the revised groundwater monitoring schedule provided in the April 2009 Groundwater Monitoring Report (Conestoga-Rovers & Associates [CRA], September 2, 2009). The annual groundwater sampling was conducted on April 29, 2011. A full round of groundwater level measurements were obtained on the same day prior to commencing the sampling program.

A. GROUNDWATER QUALITY MONITORING

As proposed in the April 2009 Groundwater Monitoring Report, the following groundwater monitoring wells were sampled during the April 2011 groundwater monitoring event:

1. Water Table Unit (WTU) wells:
 - On-Site wells: MW-11, MW-107, MW-108, MW-111, and MW-113
 - Off-Site downgradient wells: MW-4, MW-114, and MW-115
2. Upper Intermediate Unit (UIU) wells:
 - On-Site wells: MW-207 and MW-224
 - Off-Site downgradient wells: MW-209, MW-220

The samples were analyzed by Accutest of Dayton, New Jersey, for the following 2010 to 2013 Site-Specific Indicator Parameter List (SSIPL) of compounds:

- 1,1,1-Trichloroethane (1,1,1-TCA)
- 1,1-Dichloroethane (1,1-DCA)

Equal
Employment
Opportunity Employer

REGISTERED COMPANY FOR
ISO 9001
ENGINEERING DESIGN

Worldwide Engineering, Environmental, Construction, and IT Services



August 31, 2011

2

Reference No. 006029-50

- 1,2-Dichloroethane (1,2-DCA)
- cis-1,2-Dichloroethene (cis-1,2-DCE)
- trans-1,2-Dichloroethene (trans-1,2-DCE)
- Acetone
- Benzene
- Chlorobenzene
- Chloroethane
- Ethylbenzene
- Toluene
- Trichloroethene (TCE)
- Vinyl Chloride
- Xylenes, Total

Attachment A is a memorandum summarizing the groundwater monitoring field activities for the April 2011 groundwater monitoring event. Four of the eight WTU wells, and all four UIU wells, were purged dry. All wells recovered sufficiently for complete sample sets to be obtained. The fact that these wells purged dry is indicative that there is limited groundwater movement in these groundwater units.

Attachment B presents a summary of the analytical results for the detected compounds in the groundwater and surface water samples collected in April 2011, as follows:

<i>Tables in <u>Attachment B</u></i>	<i><u>Analytical Results</u></i>
Table B.1	WTU Monitoring Wells
Table B.2	UIU Monitoring Wells
Table B.3	Surface Water Sample
Table B.4	Field Blank
Table B.5	Rinse Blanks
Table B.6	Trip Blank

CRA's data quality assessment for the April 2011 analyses is included in **Attachment C**. The groundwater and surface water data were determined to be usable with the qualifications noted.



August 31, 2011

3

Reference No. 006029-50

A summary of the SSIPL compounds detected within the WTU and UIU groundwater samples during the sampling events conducted from 2004 to 2011 are presented on the attached Figures 1 and 2, respectively. Trends in the WTU and UIU are discussed below.

WTU Trends - On-Site Wells (MW-11, MW-107, MW-108, MW-111, and MW-113)

Concentrations of SSIPL compounds are expected to fluctuate from year to year within the on-Site wells. Overall, except at wells MW-11 and MW-108, the concentrations of the SSIPL compounds were similar to or lower than the 2010 concentrations (see Figure 1).

At MW-11, the SSIPL compounds were similar to or lower than the 2010 concentrations. The concentration of vinyl chloride increased very slightly from 5.2 micrograms per liter ($\mu\text{g}/\text{L}$) in 2010 to 6.1 $\mu\text{g}/\text{L}$ in 2011. Vinyl chloride was identified as one of the compounds with an increasing trend at MW-11 in the 2009 statistical evaluation of the trends of compounds of concern at the Site. Vinyl chloride was not detected at the two closest downgradient monitoring wells (MW-113 and MW-115) in 2011.

At MW-108, except for benzene, the concentrations of the SSIPL compounds were similar to or lower than the 2010 concentrations. The concentration of benzene increased slightly from 86.9 $\mu\text{g}/\text{L}$ in 2010 to 91.7/98.6 $\mu\text{g}/\text{L}$ (primary/duplicate sample) in 2011. Benzene was identified as one of the compounds with an increasing trend at MW-108 in the 2009 statistical evaluation of the trends of compounds of concern at the Site. Benzene was not detected at the two closest downgradient monitoring wells (MW-4 and MW-113) in 2011.

WTU Trends - Off-Site Wells (MW-4, MW-114, and MW-115)

Concentrations of all of the SSIPL compounds at MW-4 and MW-114 were non-detect during the 2011 sampling event (see Figure 1).

Low concentrations of 1,1-DCA, 1,2-DCA, and cis-1,2-DCE were detected in MW-115, but remain within the range of concentrations detected since 2004, and are lower than the concentrations reported in 2009 and 2010.

UIU Trends - On-Site Wells (MW-207 and MW-224)

All SSIPL compounds were non-detect in on-Site UIU wells MW-207 and MW-224, consistent with the five previous sampling events.

UIU Trends - Off-Site Wells (MW-209 and MW-220)

Concentrations of all of the SSIPL compounds were non-detect during the 2011 sampling event (see Figure 2). Acetone, which has previously been detected at select wells, was not detected in any of the 2011 samples.



August 31, 2011

4

Reference No. 006029-50

Acetone Trends

Acetone is a SSIPL compound that has previously been detected in two on-Site WTU wells (MW-108 and MW-113), and in two downgradient off-Site UIU wells (MW-209 and MW-220), from 2004 to 2010. All of these wells are located in the vicinity of the eastern property boundary. Acetone was not detected at these wells in any of the 2011 samples.

Past Ohio Environmental Protection Agency (OEPA) comments inquired about possible trends in acetone concentrations. Therefore, a summary of the acetone monitoring and trends is provided below. Note that many of the past detections discussed below were estimated results (J-values) below the normal detection limit. Because acetone is a common laboratory contaminant, it is often reported at estimated values due to background contamination in the laboratory rather than actual presence of the compound in samples.

At MW-108, acetone has been detected five times over the period of 2004 to 2011 at concentrations ranging from 3.8J µg/L to 8.4 µg/L. The concentration of acetone was 3.8J µg/L in 2009, 4.1J µg/L in 2010, and non-detect at a detection limit of 10 µg/L [(ND(10)] in 2011.

At MW-113, acetone has been detected twice over the period of 2004 to 2011. The concentration of acetone was 7.4 µg/L in 2008, ND(5.0) in 2009, 3.6J µg/L in 2010, and ND(10) in 2011.

At MW-209, acetone has been detected nine times over the period of 2004 to 2011 at concentrations ranging from 3.2J µg/L to 18.8 µg/L. The concentration of acetone was 14.4 µg/L in 2009, 9.6/9.1 µg/L (original/duplicate sample) in 2010, and ND(10) in 2011.

At MW-220, acetone has been detected four times over the period of 2004 to 2011 at concentrations ranging from 12.8 µg/L to 23.5 µg/L. The concentration of acetone was ND(5) in 2009, 13.8 µg/L in 2010, and ND(10) in 2011.

Table D.1 (**Attachment D**) summarizes the acetone concentrations from 2004 to 2011 for the four monitor wells (MW-108, MW-113, MW-209, and MW-220). Note that the United States Environmental Protection Agency (USEPA) Regional Screening Level (RSL) for acetone in tap water is 22,000 µg/L, which is significantly higher than the detected concentrations noted above. SNFT does not believe that there is an increasing trend in acetone concentrations in these wells, but will continue to monitor them annually for acetone and any associated trends.

B. GROUNDWATER HYDRAULIC MONITORING

Groundwater levels in the WTU, UIU, Lower Intermediate Unit (LIU), and Upper Sharon Unit (USU) monitoring wells and piezometers at the Site were measured on April 29, 2011, and are presented in **Attachment E**. Table E.1 (**Attachment E**) lists the groundwater levels measured in



August 31, 2011

5

Reference No. 006029-50

the monitoring wells since 2004 (the year prior to shutdown of the groundwater extraction and treatment system). The groundwater hydraulic data was reduced to elevations and entered into a computer database as required by the SOW. Groundwater contours for the April 2011 groundwater hydraulic monitoring event are presented on the figures in Attachment E.

The groundwater elevation contours for the April 2011 hydraulic monitoring demonstrate that the horizontal direction of groundwater flow is generally southeasterly in the WTU, as it has been consistently observed in the past. The groundwater flow direction in the UIU bedrock unit appears to be in a generally easterly direction, and is consistent with the pre-shutdown groundwater flow direction in this unit.

Groundwater elevations in the groundwater units that are monitored at the Site were higher in April 2011 than in the previous years of the shutdown evaluation (2005 to 2010), probably due to the record rainfall in north east Ohio in the spring of 2011.

C. SURFACE WATER AND SEDIMENT SAMPLING

The annual surface water sample was collected from the confluence of the south and east drainage ditches on April 29, 2011. Due to nearly 4 feet of standing water at the sampling location as a result of heavy spring rains, only the surface water sample was collected during the April 2011 sampling event. Sediment sampling will be performed when access to the sediment sampling location is no longer flooded. The analytical results of detected SSIPL compounds in the surface water sample and duplicate sample are provided in Table F.1 of Attachment F.

Two volatile organic compounds (VOCs) were detected in the surface water sample: cis-1,2-DCE and TCE. Cis-1,2-DCE was detected at a concentration of 1.2/1.1 µg/L, which is slightly higher than the estimated concentration of 0.28 J µg/L in 2010. TCE was detected at estimated values of 0.35J / 0.33 J µg/L in 2011 and ND(1) in 2010. Acetone was ND(10), which is consistent with previous results at this location.

No semi-volatile organic compounds (SVOCs) have been detected in the surface water samples from 2004 to 2011.

There do not appear to be any increasing concentration trends of the detected compounds in the surface water samples from 2004 to 2011. Table F.1 (Attachment F) provides a summary of the VOCs detected n the surface water samples from 2004 to 2011.



August 31, 2011

6

Reference No. 006029-50

D. DISCUSSION

Except for the expected increasing groundwater elevations in the vicinity of the pipe and media drain after shutdown of the groundwater extraction system in August 2005, no significant changes in the groundwater flow patterns have been noted since the system shutdown. Groundwater concentrations in downgradient off-Site monitoring wells have remained either non-detect or similar to the concentrations detected since 2004 (baseline sampling event for the shutdown evaluation). The increasing concentration trend at on-Site monitoring well MW-108 was extensively evaluated in the 2009 groundwater monitoring report (CRA, September 2, 2009). As noted above, concentrations of SSIPL compounds are expected to fluctuate from year to year within the on-Site wells. The 2011 analytical data indicate a decrease in SSIPL concentrations at well MW-108, except for benzene which increased slightly from 86.9 to 91.7/98.6 µg/L (primary/duplicate sample). However, the detected compounds all appear to be well-contained inside the Site boundary.

The contingency actions outlined in the April 2009 Groundwater Monitoring Report (CRA, September 2, 2009), as amended in the Responses to the OEPA January 6, 2010 Comments (CRA, March 26, 2010) are as follows:

"If VOCs above their respective maximum contaminant level (MCL) are detected in the Sentinel wells (off-Site downgradient WTU monitoring wells MW-114 and MW-115), SNFT will evaluate options to mitigate the release (e.g., restart the groundwater extraction system, implement in-situ chemical oxidation (ISCO) to treat the released groundwater, phytoremediation, etc.). The Sentinel wells are located 70 to 80 feet south of the southern property boundary and wet well of the pipe and media drain. During pumping of groundwater from the pipe and media drain, the WTU zone of groundwater capture extends 100 to 200 feet south of the pipe and media drain at the wet well. In this case, off-Site downgradient WTU monitoring wells MW-116, MW-117 and MW-118 (approximately 230 feet south of the southern property boundary) will be used to verify whether there is any long term impact to the groundwater south of the Site and outside the influence of the pipe and media drain".

All of the SSIPL compounds at MW-114 were non-detect during the 2011 sampling event. The low concentrations of 1,1-DCA, 1,2-DCA, and cis-1,2-DCE detected at MW-115 remain within the range of concentrations detected since 2004, are lower than the concentrations reported in 2009 and 2010, and are below their maximum contaminant levels (MCLs). No contingency actions are required based on the April 2011 groundwater monitoring data, and therefore, the groundwater extraction system will remain off, pending the results of the 2012 groundwater sampling event.

Should you have any questions or require additional information, please do not hesitate to contact the undersigned.



**CONESTOGA-ROVERS
& ASSOCIATES**

August 31, 2011

7

Reference No. 006029-50

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "Steve Whillier".

Steve Whillier

SW/rrw/Will-067

Encl.

cc: [REDACTED] Pablo Valentin, USEPA (2 hardcopies, 1 e-copy)
Robert Casselberry, SNFT (1 hardcopy, 1 e-copy)
Jeff Sussman, SNFT (1 hardcopy, 1 e-copy)
Joe Montello, SNFT (1 hardcopy, 1 e-copy)
Douglas G. Haynam, Shumaker, Loop & Kendrick, LLP (e-copy)
Jack Michels, CRA (e-copy)
Nick Schapman, CRA (e-copy)
Mike Mateyk, CRA (e-copy)

FIGURES

ATTACHMENT A

GROUNDWATER MONITORING FIELD ACTIVITIES SUMMARY
APRIL 2011



**CONESTOGA-ROVERS
& ASSOCIATES**

2055 Niagara Falls Blvd., Suite #3
Niagara Falls, New York 14304
Telephone: (716) 297-6150 Fax: (716) 297-2265
www.CRAworld.com

MEMORANDUM

Sent via email

TO: Stephen Whillier REF. NO.: 006029-50

FROM: David Tyran/adh/3 *DJT* DATE: May 9, 2011

RE: Post Shutdown Hydraulic Monitoring and Groundwater Quality Monitoring
April 2011
Summit National Superfund Site
Deerfield Township of Portage County, Ohio

The following is a brief summary of the Site activities associated with the April 2011 round of groundwater sampling conducted on April 29, 2011 at the Summit National Superfund Site (Site) in Deerfield Township of Portage County, Ohio.

On-Site Personnel

Field activities were conducted by Conestoga-Rovers & Associates' (CRA's) Shawn Gardner and Dave Tyran.

Water Levels

A round of water level readings was taken from all on-Site and off-Site monitoring wells on April 29, 2011, using a Solinst electronic water level tape. The water level tape was decontaminated between water level measurements at each monitoring well. The decontamination sequence involved first rinsing the tape with potable water and final rinsing with deionized water.

Purging and Sampling of Monitoring Wells

During purging of all monitoring wells, readings of specific conductivity, temperature, and turbidity (dependent on field observations) were taken after the removal of each standing well volume. A summary of the well purge data is provided in Table 1. The quality of the evacuated water was also noted for color and clarity. All purge waters (approximately 110 gallons) from the monitoring wells were containerized in three steel 55-gallon drums for later disposal off Site.

Once the monitoring wells were purged, groundwater samples were collected for analyses of the Site-Specific Indicator Parameter List (SSIPL) for volatile organic compounds (VOCs).

All 12 monitoring wells were purged using either dedicated Waterra foot valves and tubing or an electric Grundfos submersible pump. The wells were sampled using a precleaned stainless steel bailer (as detailed below) or Teflon bailer. Once purging of the monitoring well was completed, the tubing was removed from

the well and drained. The standing water within the well was allowed to settle so that a clear sample could be collected. After sampling of the well was completed, the tubing was placed back down the well.

As shown in Table 1, 8 out of the 12 wells were purged dry and then allowed to recover so a complete sample set could be taken. The remaining four wells had sufficient recharge to allow for stabilization by purging three or more volumes.

Collected samples were labeled and placed in a cooler and maintained cool with ice. The samples were shipped by Federal Express to Accutest Laboratories in Dayton, New Jersey, under Chain of Custody protocols.

Decontamination Procedures

Stainless steel bailers were cleaned between monitoring wells by using the following decontamination sequence:

- i) Clean with brush in potable water and Alconox detergent
- ii) Rinse thoroughly with potable water
- iii) Rinse thoroughly with deionized water
- iv) Allow the bailer to air dry on clean aluminum foil

Field Quality Assurance/Quality Control (QA/QC) Program

Field QA/QC samples collected during the April 2011 round of groundwater sampling included two blind field duplicates and two stainless steel bailer rinsate blanks. Two matrix spike and matrix spike duplicates (MS/MSDs) were also collected. In addition, one field blank was collected for the surface water sample. One trip blank was sent with the shipment of samples to the laboratory by placing all VOC samples in the same cooler with the trip blank.

Stainless steel bailer rinsate blanks were collected by pouring lab supplied deionized water into a precleaned bailer and then filling the sample containers.

The surface water field blank was obtained by pouring lab supplied deionized water directly into labeled sample bottles while standing next to the surface water sample location.

Sediment Sample

Due to extremely high water in the impoundment area - close to 4 feet on the staff gauge - a sediment sample was not collected this round.

Surface Water

A surface water sample was collected at the confluence of the south and east ditches. This sample was obtained by attaching a clean amber jar to a telescoping pole and dipping the jar at the approximate confluence point and then pouring off the water into labeled sample jars. The sample was analyzed for VOCs and semi-volatile organic compounds (SVOCs).

TABLE 1

Page 1 of 2

**SUMMARY OF MONITORING WELL PURGE DATA
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD TOWNSHIP OF PORTAGE COUNTY, OHIO
APRIL 2011**

<i>Well I.D.</i>	<i>Date Purged/ Sampled</i>	<i>Well Volume (Gallons)</i>	<i>Purged Volume (Gallons)</i>	<i>Time</i>	<i>Conductivity (μs/cm)</i>	<i>pH</i>	<i>Temperature (°C)</i>	<i>Turbidity (NTU)</i>	<i>Water Quality</i>	<i>Purge/Sampling Method</i>	<i>Comments</i>
MW-4	04/29/11 04/29/11	12.3	10.0 Sample	14:23 16:45	2.67	6.33	8.60	39.6	Clear, colorless Clear, colorless	Grundfos/SS bailer for all parameters	Well dry @ 10 gallons
MW-11	04/29/11	2.9	2.9 5.8 8.7 11.6 Sample	12:21 12:25 12:30 12:34 16:20	2.19 1.77 1.74 1.72	6.39 6.37 6.35 6.32	8.68 8.56 8.37 8.51	19.5 4.1 3.9 3.0	Clear, colorless Clear, colorless Clear, colorless Clear, colorless Clear, colorless	Waterra/Teflon bailer for all parameters	Good recharge
MW-107	04/29/11	3.5	3.5 7.0 10.5 Sample	13:48 13:53 13:59 17:05	2.71 2.70 2.69	6.08 6.13 6.20	9.33 9.49 9.61	12.7 7.7 10.1	Clear, colorless - strong chemical odor Clear, colorless - strong chemical odor Clear, colorless - strong chemical odor Clear, colorless - strong chemical odor	Waterra/SS bailer for all parameters	Good recharge
MW-108	04/29/11	2.2	2.2 4.4 Sample	14:49 14:51 16:15	1.72 1.72	6.27 6.21	7.84 7.95	263.4 143.2	Cloudy, brown Cloudy, brown Cloudy, red brown	Waterra/SS bailer for all parameters	Well dry @ 6.5 gallons
MW-111	04/29/11	2.8	2.8 5.6 8.4 Sample	12:47 12:52 12:55 16:30	3.57 3.60 3.61	5.55 5.49 5.51	10.11 10.28 10.31	13.6 5.0 5.1 Clear, colorless - light brown tint	Waterra/SS bailer for all parameters	Good recharge	
MW-113	04/29/11	1.9	1.9 3.8 Sample	12:03 12:05 17:25	3.50 3.56	6.36 6.33	7.87 7.79	124.6 1171.2	Cloudy, dark gray Cloudy, dark gray Clear, colorless	Waterra/SS bailer for all parameters	Well dry @ 4.7 gallons
MW-114	04/29/11	2.2	2.2 4.4	11:19 11:22	2.59 2.75	6.30 5.90	8.72 9.26	319.8 97.1	Cloudy, red brown Cloudy, brown	Waterra/SS bailer for all parameters	Well dry @ 4.5 gallons

TABLE 1

Page 2 of 2

**SUMMARY OF MONITORING WELL PURGE DATA
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD TOWNSHIP OF PORTAGE COUNTY, OHIO
APRIL 2011**

<i>Well I.D.</i>	<i>Date Purged/Sampled</i>	<i>Well Volume (Gallons)</i>	<i>Purged Volume (Gallons)</i>	<i>Time</i>	<i>Conductivity (ms/cm)</i>	<i>pH</i>	<i>Temperature (°C)</i>	<i>Turbidity (NTU)</i>	<i>Water Quality</i>	<i>Purge/Sampling Method</i>	<i>Comments</i>
				Sample	17:15				Clear, light brown tint		
MW-115	04/29/11	4.0	4.0	11:03	2.14	6.36	10.43	9.0	Clear, colorless	Grundfos/SS bailer	Good recharge
			8.0	11:05	2.16	6.33	10.56	3.2	Clear, colorless	for all parameters	
			12.0	11:07	2.17	6.31	10.66	2.1	Clear, colorless		
			Sample	17:20					Clear, colorless		
MW-207	04/29/11	6.5	6.5	13:34	3.15	5.86	9.46	103.6	Cloudy, gray	Grundfos/SS bailer	Well dry @ 13.5 gallons
			13.0	13:36	3.21	5.83	10.43	330.7	Cloudy, gray	for all parameters	
			Sample	16:35					Clear, colorless		
MW-209	04/29/11	5.4	5.4	14:40	2.94	6.31	8.66	40.9	Slightly cloudy, light brown	Grundfos/SS bailer	Well dry @ 7.5 gallons
			Sample	17:45					Clear, colorless		
MW-220	04/29/11	5.0	5.0	11:41	3.54	6.36	9.19	10.8	Clear, colorless	Grundfos/SS bailer	Well dry @ 8 gallons
			Sample	17:00					Clear, colorless		
MW-224	04/29/11	4.5	4.5	10:43	0.683	6.74	10.32	139.4	Cloudy, brown	Grundfos/SS bailer	Well dry @ 10 gallons
			9.0	10:45	0.666	6.64	10.66	191.4	Cloudy, brown	for all parameters	
			Sample	17:10					Clear, colorless		
Surface Water	04/29/11		Sample	18:00	0.807	7.13	12.80	8.7	Clear, colorless	Grab sample	

Notes:

NM - Not measured.

SS - Stainless Steel.

ATTACHMENT B

ANALYTICAL DATA SUMMARY

TABLE OF CONTENTS

	<u>Page</u>
TABLE B.1	ANALYTICAL DATA SUMMARY - WTU MONITORING WELLS.....
TABLE B.2	ANALYTICAL DATA SUMMARY - UIU MONITORING WELLS.....
TABLE B.3	ANALYTICAL DATA SUMMARY - SURFACE WATER SAMPLE.....
TABLE B.4	ANALYTICAL DATA SUMMARY - FIELD BLANK
TABLE B.5	ANALYTICAL DATA SUMMARY - RINSE BLANKS.....
TABLE B.6	ANALYTICAL DATA SUMMARY - TRIP BLANK.....

TABLE B.1

**ANALYTICAL DATA SUMMARY
WTU MONITORING WELLS
APRIL 2011 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO**

Sample Location	MW-4	MW-11	MW-107	MW-108	MW-108	MW-111	MW-113	MW-114	MW-115
Sample ID	WG-6029-042911-007	WG-6029-042911-002	WG-6029-042911-011	WG-6029-042911-001	WG-6029-042911-009	WG-6029-042911-004	WG-6029-042911-015	WG-6029-042911-013	WG-6029-042911-014
Sample Date	4/29/2011	4/29/2011	4/29/2011	4/29/2011	4/29/2011	4/29/2011	4/29/2011	4/29/2011	4/29/2011
Sample Type					Duplicate				
Parameters									
Volatile Organic Compounds (µg/L)									
1,1,1-Trichloroethane	ND(1.0)	28.1	57.9	5.3	6.0	1.1	ND(1.0)	ND(1.0)	ND(1.0)
1,1-Dichloroethane	ND(1.0)	63.4	1060	200	234	21.1	ND(1.0)	ND(1.0)	1.7
1,2-Dichloroethane	ND(1.0)	1.2	157	59.0	62.0	44.5	ND(1.0)	ND(1.0)	0.46 J
1,2-Dichloroethene (total)	ND(1.0)	52.5	270	148	160	4.9	ND(1.0)	ND(1.0)	7.0
Acetone	ND(10)	ND(10)	ND(100)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
Benzene	ND(1.0)	0.61 J	82.3	91.7	98.6	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Chlorobenzene	ND(1.0)	ND(1.0)	54.2	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Chloroethane	ND(1.0)	ND(1.0)	5.0 J	ND(1.0)	ND(1.0)	0.88 J	ND(1.0)	ND(1.0)	ND(1.0)
cis-1,2-Dichloroethene	ND(1.0)	50.7	270	144	156	4.9	ND(1.0)	ND(1.0)	7.0
Ethylbenzene	ND(1.0)	ND(1.0)	989	0.58 J	0.63 J	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Toluene	ND(1.0)	ND(1.0)	4040	0.73 J	0.83 J	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
trans-1,2-Dichloroethene	ND(1.0)	1.9	ND(10)	3.9	4.5	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Trichloroethene	ND(1.0)	95.9	4.5 J	25.7	28.8	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Vinyl chloride	ND(1.0)	6.1	76.3	61.2	69.5	3.3	ND(1.0)	ND(1.0)	ND(1.0)
Xylenes (total)	ND(1.0)	ND(1.0)	3,220	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)

Notes:

µg/L = micrograms per liter

ND () - Not present at or above the associated value

J - Estimated concentration.

TABLE B.2

**ANALYTICAL DATA SUMMARY
UIU MONITORING WELLS
APRIL 2011 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO**

<i>Sample Location</i>	<i>MW-207</i>	<i>MW-207</i>	<i>MW-209</i>	<i>MW-220</i>	<i>MW-224</i>					
<i>Sample ID</i>	WG-6029-042911-005	WG-6029-042911-006	WG-6029-042911-016	WG-6029-042911-010	WG-6029-042911-012					
<i>Sample Date</i>	4/29/2011	4/29/2011	4/29/2011	4/29/2011	4/29/2011					
<i>Sample Type</i>	<i>Duplicate</i>									
<i>Parameters</i>										
<i>Volatile Organic Compounds (µg/L)</i>										
1,1,1-Trichloroethane	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					
1,1-Dichloroethane	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					
1,2-Dichloroethane	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					
1,2-Dichloroethene (total)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					
Acetone	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)					
Benzene	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					
Chlorobenzene	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					
Chloroethane	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					
cis-1,2-Dichloroethene	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					
Ethylbenzene	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					
Toluene	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					
trans-1,2-Dichloroethene	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					
Trichloroethene	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					
Vinyl chloride	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					
Xylenes (total)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)					

Notes:

µg/L = micrograms per liter

ND () - Not present at or above the associated value

TABLE B.3
ANALYTICAL DATA SUMMARY
SURFACE WATER SAMPLE
APRIL 2011 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO

<i>Sample Location</i>	<i>South & East Ditches</i>	<i>South & East Ditches</i>
<i>Sample ID</i>	WS-6029-042911-017	WS-6029-042911-019
<i>Sample Date</i>	4/29/2011	4/29/2011
<i>Sample Type</i>		Duplicate
<i>Parameters</i>		
Volatile Organic Compounds (µg/L)		
1,1,1-Trichloroethane	ND(1.0)	ND(1.0)
1,1,2,2-Tetrachloroethane	ND(1.0)	ND(1.0)
1,1,2-Trichloroethane	ND(1.0)	ND(1.0)
1,1-Dichloroethane	ND(1.0)	ND(1.0)
1,1-Dichloroethene	ND(1.0)	ND(1.0)
1,2-Dichloroethane	ND(1.0)	ND(1.0)
1,2-Dichloroethene (total)	1.2	1.1
1,2-Dichloropropane	ND(1.0)	ND(1.0)
2-Butanone (Methyl ethyl ketone)	ND(10)	ND(10)
2-Hexanone	ND(5.0)	ND(5.0)
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ND(5.0)	ND(5.0)
Acetone	ND(10)	ND(10)
Benzene	ND(1.0)	ND(1.0)
Bromodichloromethane	ND(1.0)	ND(1.0)
Bromoform	ND(4.0)	ND(4.0)
Bromomethane (Methyl bromide)	ND(2.0)	ND(2.0)
Carbon disulfide	ND(2.0)	ND(2.0)
Carbon tetrachloride	ND(1.0)	ND(1.0)
Chlorobenzene	ND(1.0)	ND(1.0)
Chloroethane	ND(1.0)	ND(1.0)
Chloroform (Trichloromethane)	ND(1.0)	ND(1.0)
Chloromethane (Methyl chloride)	ND(1.0)	ND(1.0)
cis-1,2-Dichloroethene	1.2	1.1
cis-1,3-Dichloropropene	ND(1.0)	ND(1.0)
Dibromochloromethane	ND(1.0)	ND(1.0)
Ethylbenzene	ND(1.0)	ND(1.0)
Methylene chloride	ND(2.0)	ND(2.0)
Styrene	ND(5.0)	ND(5.0)
Tetrachloroethene	ND(1.0)	ND(1.0)
Toluene	ND(1.0)	ND(1.0)
trans-1,2-Dichloroethene	ND(1.0)	ND(1.0)
trans-1,3-Dichloropropene	ND(1.0)	ND(1.0)
Trichloroethene	0.35 J	0.33 J
Vinyl chloride	ND(1.0)	ND(1.0)
Xylenes (total)	ND(1.0)	ND(1.0)

TABLE B.3
ANALYTICAL DATA SUMMARY
SURFACE WATER SAMPLE
APRIL 2011 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO

<i>Sample Location</i>	<i>South & East Ditches</i>	<i>South & East Ditches</i>
<i>Sample ID</i>	WS-6029-042911-017	WS-6029-042911-019
<i>Sample Date</i>	4/29/2011	4/29/2011
<i>Sample Type</i>		Duplicate
<i>Parameters</i>		
<i>Semi-volatile Organic Compounds (µg/L)</i>		
1,2,4-Trichlorobenzene	ND(1.0)	ND(1.0)
1,2-Dichlorobenzene	ND(1.0)	ND(1.0)
1,3-Dichlorobenzene	ND(1.0)	ND(1.0)
1,4-Dichlorobenzene	ND(1.0)	ND(1.0)
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ND(2.0)	ND(2.0)
2,4,5-Trichlorophenol	ND(5.0)	ND(5.0)
2,4,6-Trichlorophenol	ND(5.0)	ND(5.0)
2,4-Dichlorophenol	ND(5.0)	ND(5.0)
2,4-Dimethylphenol	ND(5.0)	ND(5.0)
2,4-Dinitrophenol	ND(20)	ND(20)
2,4-Dinitrotoluene	ND(2.0)	ND(2.0)
2,6-Dinitrotoluene	ND(2.0)	ND(2.0)
2-Chloronaphthalene	ND(2.0)	ND(2.0)
2-Chlorophenol	ND(5.0)	ND(5.0)
2-Methylnaphthalene	ND(1.0)	ND(1.0)
2-Methylphenol	ND(2.0)	ND(2.0)
2-Nitroaniline	ND(5.0)	ND(5.0)
2-Nitrophenol	ND(5.0)	ND(5.0)
3&4-Methylphenol	ND(2.0)	ND(2.0)
3,3'-Dichlorobenzidine	ND(5.0)	ND(5.0)
3-Nitroaniline	ND(5.0)	ND(5.0)
4,6-Dinitro-2-methylphenol	ND(20)	ND(20)
4-Bromophenyl phenyl ether	ND(2.0)	ND(2.0)
4-Chloro-3-methylphenol	ND(5.0)	ND(5.0)
4-Chloroaniline	ND(5.0)	ND(5.0)
4-Chlorophenyl phenyl ether	ND(2.0)	ND(2.0)
4-Nitroaniline	ND(5.0)	ND(5.0)
4-Nitrophenol	ND(10)	ND(10)
Acenaphthene	ND(1.0)	ND(1.0)
Acenaphthylene	ND(1.0)	ND(1.0)
Anthracene	ND(1.0)	ND(1.0)
Benzo(a)anthracene	ND(1.0)	ND(1.0)
Benzo(a)pyrene	ND(1.0)	ND(1.0)
Benzo(b)fluoranthene	ND(1.0)	ND(1.0)
Benzo(g,h,i)perylene	ND(1.0)	ND(1.0)
Benzo(k)fluoranthene	ND(1.0)	ND(1.0)

TABLE B.3

**ANALYTICAL DATA SUMMARY
SURFACE WATER SAMPLE
APRIL 2011 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO**

<i>Sample Location</i>	<i>South & East Ditches</i>	<i>South & East Ditches</i>
<i>Sample ID</i>	WS-6029-042911-017	WS-6029-042911-019
<i>Sample Date</i>	4/29/2011	4/29/2011
<i>Sample Type</i>		Duplicate
<i>Parameters</i>		
<i>Semi-volatile Organic Compounds (µg/L) (cont'd)</i>		
bis(2-Chloroethoxy)methane	ND(2.0)	ND(2.0)
bis(2-Chloroethyl)ether	ND(2.0)	ND(2.0)
bis(2-Ethylhexyl)phthalate (DEHP)	ND(2.0)	ND(2.0)
Butyl benzylphthalate (BBP)	ND(2.0)	ND(2.0)
Carbazole	ND(1.0)	ND(1.0)
Chrysene	ND(1.0)	ND(1.0)
Dibenz(a,h)anthracene	ND(1.0)	ND(1.0)
Dibenzofuran	ND(5.0)	ND(5.0)
Diethyl phthalate	ND(2.0)	ND(2.0)
Dimethyl phthalate	ND(2.0)	ND(2.0)
Di-n-butylphthalate (DBP)	ND(2.0)	ND(2.0)
Di-n-octyl phthalate (DnOP)	ND(2.0)	ND(2.0)
Fluoranthene	ND(1.0)	ND(1.0)
Fluorene	ND(1.0)	ND(1.0)
Hexachlorobenzene	ND(1.0)	ND(1.0)
Hexachlorobutadiene	ND(1.0)	ND(1.0)
Hexachlorocyclopentadiene	ND(20)	ND(20)
Hexachloroethane	ND(2.0)	ND(2.0)
Indeno(1,2,3-cd)pyrene	ND(1.0)	ND(1.0)
Isophorone	ND(2.0)	ND(2.0)
Naphthalene	ND(1.0)	ND(1.0)
Nitrobenzene	ND(2.0)	ND(2.0)
N-Nitrosodi-n-propylamine	ND(2.0)	ND(2.0)
N-Nitrosodiphenylamine	ND(5.0)	ND(5.0)
Pentachlorophenol	ND(10)	ND(10)
Phenanthrene	ND(1.0)	ND(1.0)
Phenol	ND(2.0)	ND(2.0)
Pyrene	ND(1.0)	ND(1.0)

Notes:

µg/L = micrograms per liter

ND () - Not present at or above the associated value

TABLE B.4
ANALYTICAL DATA SUMMARY
FIELD BLANK
APRIL 2011 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO

<i>Sample Location</i>	<i>Field Blank</i>
<i>Sample ID</i>	FB-6029-042911-018
<i>Sample Date</i>	4/29/2011
<i>Parameters</i>	
<i>Volatile Organic Compounds (µg/L)</i>	
1,1,1-Trichloroethane	ND(1.0)
1,1,2,2-Tetrachloroethane	ND(1.0)
1,1,2-Trichloroethane	ND(1.0)
1,1-Dichloroethane	ND(1.0)
1,1-Dichloroethene	ND(1.0)
1,2-Dichloroethane	ND(1.0)
1,2-Dichloroethene (total)	ND(1.0)
1,2-Dichloropropane	ND(1.0)
2-Butanone (Methyl ethyl ketone) (MEK)	ND(10)
2-Hexanone	ND(5.0)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ND(5.0)
Acetone	ND(10)
Benzene	ND(1.0)
Bromodichloromethane	ND(1.0)
Bromoform	ND(4.0)
Bromomethane (Methyl bromide)	ND(2.0)
Carbon disulfide	ND(2.0)
Carbon tetrachloride	ND(1.0)
Chlorobenzene	ND(1.0)
Chloroethane	ND(1.0)
Chloroform (Trichloromethane)	ND(1.0)
Chloromethane (Methyl chloride)	ND(1.0)
cis-1,2-Dichloroethene	ND(1.0)
cis-1,3-Dichloropropene	ND(1.0)
Dibromochloromethane	ND(1.0)
Ethylbenzene	ND(1.0)
Methylene chloride	ND(2.0)
Styrene	ND(5.0)
Tetrachloroethene	ND(1.0)
Toluene	ND(1.0)
trans-1,2-Dichloroethene	ND(1.0)
trans-1,3-Dichloropropene	ND(1.0)
Trichloroethene	ND(1.0)
Vinyl chloride	ND(1.0)
Xylenes (total)	ND(1.0)

TABLE B.4

**ANALYTICAL DATA SUMMARY
FIELD BLANK
APRIL 2011 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO**

<i>Sample Location</i>	<i>Field Blank</i>
<i>Sample ID</i>	FB-6029-042911-018
<i>Sample Date</i>	4/29/2011

*Parameters**Semi-volatile Organic Compounds (µg/L)*

1,2,4-Trichlorobenzene	ND(1.1)
1,2-Dichlorobenzene	ND(1.1)
1,3-Dichlorobenzene	ND(1.1)
1,4-Dichlorobenzene	ND(1.1)
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether	ND(2.1)
2,4,5-Trichlorophenol	ND(5.3)
2,4,6-Trichlorophenol	ND(5.3)
2,4-Dichlorophenol	ND(5.3)
2,4-Dimethylphenol	ND(5.3)
2,4-Dinitrophenol	ND(21)
2,4-Dinitrotoluene	ND(2.1)
2,6-Dinitrotoluene	ND(2.1)
2-Chloronaphthalene	ND(2.1)
2-Chlorophenol	ND(5.3)
2-Methylnaphthalene	ND(1.1)
2-Methylphenol	ND(2.1)
2-Nitroaniline	ND(5.3)
2-Nitrophenol	ND(5.3)
3&4-Methylphenol	ND(2.1)
3,3'-Dichlorobenzidine	ND(5.3)
3-Nitroaniline	ND(5.3)
4,6-Dinitro-2-methylphenol	ND(21)
4-Bromophenyl phenyl ether	ND(2.1)
4-Chloro-3-methylphenol	ND(5.3)
4-Chloroaniline	ND(5.3)
4-Chlorophenyl phenyl ether	ND(2.1)
4-Nitroaniline	ND(5.3)
4-Nitrophenol	ND(11)
Acenaphthene	ND(1.1)
Acenaphthylene	ND(1.1)
Anthracene	ND(1.1)
Benzo(a)anthracene	ND(1.1)
Benzo(a)pyrene	ND(1.1)
Benzo(b)fluoranthene	ND(1.1)
Benzo(g,h,i)perylene	ND(1.1)
Benzo(k)fluoranthene	ND(1.1)
bis(2-Chloroethoxy)methane	ND(2.1)

TABLE B.4
ANALYTICAL DATA SUMMARY
FIELD BLANK
APRIL 2011 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO

<i>Sample Location</i>	<i>Field Blank</i>
<i>Sample ID</i>	FB-6029-042911-018
<i>Sample Date</i>	4/29/2011
<i>Parameters</i>	
<i>Semi-volatile Organic Compounds (ug/L) (cont'd)</i>	
bis(2-Chloroethyl)ether	ND(2.1)
bis(2-Ethylhexyl)phthalate (DEHP)	ND(2.1)
Butyl benzylphthalate (BBP)	ND(2.1)
Carbazole	ND(1.1)
Chrysene	ND(1.1)
Dibenz(a,h)anthracene	ND(1.1)
Dibenzofuran	ND(5.3)
Diethyl phthalate	ND(2.1)
Dimethyl phthalate	ND(2.1)
Di-n-butylphthalate (DBP)	ND(2.1)
Di-n-octyl phthalate (DnOP)	ND(2.1)
Fluoranthene	ND(1.1)
Fluorene	ND(1.1)
Hexachlorobenzene	ND(1.1)
Hexachlorobutadiene	ND(1.1)
Hexachlorocyclopentadiene	ND(21)
Hexachloroethane	ND(2.1)
Indeno(1,2,3-cd)pyrene	ND(1.1)
Isophorone	ND(2.1)
Naphthalene	ND(1.1)
Nitrobenzene	ND(2.1)
N-Nitrosodi-n-propylamine	ND(2.1)
N-Nitrosodiphenylamine	ND(5.3)
Pentachlorophenol	ND(11)
Phenanthrene	ND(1.1)
Phenol	ND(2.1)
Pyrene	ND(1.1)

Notes:

ug/L = micrograms per liter

ND () - Not present at or above the associated value

TABLE B.5

**ANALYTICAL DATA SUMMARY
RINSE BLANKS
APRIL 2011 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO**

<i>Sample Location</i>	<i>Rinse Blank</i>	<i>Rinse Blank</i>
<i>Sample ID</i>	RB-6029-042911-003	RB-6029-042911-008
<i>Sample Date</i>	4/29/2011	4/29/2011

Parameters***Volatile Organic Compounds (µg/L)***

1,1,1-Trichloroethane	ND(1.0)	ND(1.0)
1,1-Dichloroethane	ND(1.0)	ND(1.0)
1,2-Dichloroethane	ND(1.0)	ND(1.0)
1,2-Dichloroethene (total)	ND(1.0)	ND(1.0)
Acetone	ND(10)	ND(10)
Benzene	ND(1.0)	ND(1.0)
Chlorobenzene	ND(1.0)	ND(1.0)
Chloroethane	ND(1.0)	ND(1.0)
cis-1,2-Dichloroethene	ND(1.0)	ND(1.0)
Ethylbenzene	ND(1.0)	ND(1.0)
Toluene	ND(1.0)	ND(1.0)
trans-1,2-Dichloroethene	ND(1.0)	ND(1.0)
Trichloroethene	ND(1.0)	ND(1.0)
Vinyl chloride	ND(1.0)	ND(1.0)
Xylenes (total)	ND(1.0)	ND(1.0)

Notes:

µg/L = micrograms per liter

ND () - Not present at or above the associated value

TABLE B.6
ANALYTICAL DATA SUMMARY
TRIP BLANK
APRIL 2011 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO

<i>Sample Location</i>	<i>Trip Blank</i>
<i>Sample ID</i>	TB-6029-042911
<i>Sample Date</i>	4/29/2011
<i>Parameters</i>	
<i>Volatile Organic Compounds (µg/L)</i>	
1,1,1-Trichloroethane	ND(1.0)
1,1-Dichloroethane	ND(1.0)
1,2-Dichloroethane	ND(1.0)
1,2-Dichloroethene (total)	ND(1.0)
Acetone	ND(10)
Benzene	ND(1.0)
Chlorobenzene	ND(1.0)
Chloroethane	ND(1.0)
cis-1,2-Dichloroethene	ND(1.0)
Ethylbenzene	ND(1.0)
Toluene	ND(1.0)
trans-1,2-Dichloroethene	ND(1.0)
Trichloroethene	ND(1.0)
Vinyl chloride	ND(1.0)
Xylenes (total)	ND(1.0)

Notes:

µg/L = micrograms per liter

ND () - Not present at or above the associated value

ATTACHMENT C

DATA QUALITY ASSESSMENT



**CONESTOGA-ROVERS
& ASSOCIATES**

11004 East 51st Street, Tulsa, Oklahoma 74146
Telephone: (918) 828-2424 Fax: (918) 828-0202
www.CRAworld.com

MEMORANDUM

TO: Steve Whillier REF. NO.: 006029-50

FROM: Julie Czech/JC/40 DATE: June 1, 2011

C.C.: Paul Swangler

RE: Data Quality Assessment and Validation
April 2011 Annual Monitoring Event
Summit National Superfund Site
Deerfield Township, Portage County, Ohio

[Handwritten signature over the date]

The following summarizes the results of the data quality assessment and validation conducted for the samples collected during April 2011 at the Summit National Superfund Site in Deerfield Township, Portage County, Ohio (Site). The samples identified in Table 1 were selectively analyzed for Site-specific indicator parameter list (SSIPL) and target compound list (TCL) volatile organic compounds (VOCs) and TCL semivolatile organic compounds (SVOCs) by Accutest Laboratories, Inc. of Dayton, New Jersey. The methods of analysis are identified in Table 2. The data quality evaluation criteria were established by the Site-specific quality assurance project plan (QAPP).¹

Sample Receipt and Holding Time Period Compliance

All samples were received by the laboratory intact, properly preserved, within the proper temperature range, and with the required chain-of-custody documentation. All samples were prepared and analyzed within the holding time periods specified in the QAPP.

Method Blank Sample Data

Method blank sample data were evaluated to verify that analytes detected in investigative samples were not attributable to laboratory conditions or procedures. Target analytes were not detected in the method blank samples.

Surrogate Compounds Data

Method performance on individual samples was evaluated by the percent recovery data from surrogate compounds spiked into each sample prior to preparation and analysis. The surrogate compounds percent recovery acceptance criteria was achieved for the samples.

¹Application of data quality evaluation criteria was consistent with the relevant criteria in "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", EPA-540/R-99/008, October 1999.



Blank Spike Sample Analyses

Analytical accuracy was evaluated by the percent recovery data from blank spike sample analyses. The blank spike percent recovery data were acceptable for all analytes.

Matrix Spike/Matrix Spike Duplicate Sample Analyses

Accuracy and precision relative to the sample matrices were evaluated by percent recovery and RPD data from matrix spike/matrix spike duplicate (MS/MSD) sample analyses. The percent recovery and RPD data were acceptable for project-related MS/MSDs.

Sample Quantitation

VOC and SVOC results reported at concentrations less than their sample-specific reporting limits but greater than or equal to their respective method detection limits were flagged by the laboratory with the "J" qualifier. Results flagged as such are estimated concentrations, and the data validation "J" qualifier was applied to these results during the data validation process.

Field Quality Assurance/Quality Control

Field quality assurance measures included the analysis of equipment rinse blanks, a field blank sample, field duplicate sample sets, and a trip blank sample.

The effectiveness of the field decontamination procedure was evaluated by the data from the analysis of equipment rinsate blank samples. Target analytes were not detected in the equipment rinse blank samples, indicating the decontamination procedure was effective.

A field blank sample was collected to evaluate whether contaminants were introduced into the samples during the sampling procedures. The field blank sample did not contain detectable concentrations of target analytes.

Overall precision of the sampling and analysis event was evaluated by the data from the analyses of field duplicate samples that were submitted blindly to the laboratory. Table 3 summarizes the results of, and RPDs calculated for, analytes detected in the investigative and field duplicate samples. The RPD data indicate overall precision was acceptable.

A trip blank sample was included in the shipping cooler containing investigative aqueous samples being submitted for VOC analysis to monitor for sample cross-contamination by VOCs during sample shipping and storage. VOCs were not detected in the trip blank sample.

Completeness

The objective for completeness, which is defined in the QAPP as the total number of usable sample results versus the total possible number of sample results, was required to be at least 95%. All investigative sample results were usable, and the completeness objective was attained.

Overall Assessment

The data are suitable for their intended purpose without qualification.

TABLE 1

SAMPLE IDENTIFICATION AND LOCATION SUMMARY
APRIL 2011 ANNUAL MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD TOWNSHIP, PORTAGE COUNTY, OHIO

<i>Sample ID</i>	<i>Location</i>
WG-6029-042911-001	MW-108
WG-6029-042911-002	MW-11
WG-6029-042911-003	RINSE BLANK
WG-6029-042911-004	MW-111
WG-6029-042911-005	MW-207
WG-6029-042911-006	MW-207 (Dupl.)
WG-6029-042911-007	MW-4
WG-6029-042911-008	RINSE BLANK
WG-6029-042911-009	MW-108 (Dupl.)
WG-6029-042911-010	MW-220
WG-6029-042911-011	MW-107
WG-6029-042911-012	MW-224
WG-6029-042911-013	MW-114
WG-6029-042911-014	MW-115
WG-6029-042911-015	MW-113
WG-6029-042911-016	MW-209
TB-6029-042911	TRIP BLANK
WS-6029-042911-017	S & E DITCHES
FB-6029-042911-018	FIELD BLANK
WS-6029-042911-019	S & E DITCHES (Dupl.)

TABLE 2

SUMMARY OF ANALYTICAL METHODS
APRIL 2011 ANNUAL MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD TOWNSHIP, PORTAGE COUNTY, OHIO

<i>Parameter</i>	<i>Analytical Method¹</i>
Volatile Organic Compounds (VOCs)	SW-846 8260B
Semivolatile Organic Compounds (SVOCs)	SW-846 8270C

¹ Method references:
SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA SW-846,
3rd Edition with Updates I through IIIB.

TABLE 3
SUMMARY OF DETECTED ANALYTES
FIELD DUPLICATE SAMPLES
APRIL 2011 ANNUAL MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD TOWNSHIP, PORTAGE COUNTY, OHIO

<i>Analyte</i>	<i>Investigative Sample</i>	<i>Duplicate Sample</i>	<i>RPD</i> ¹
	WG-6029-042911-001	WG-6029-042911-009	
Benzene	91.7	98.6	7.3
1,1-Dichloroethane	200	234	16
1,2-Dichloroethane	59.0	62.0	5.0
cis-1,2-Dichloroethene	144	156	8.0
trans-1,2-Dichloroethene	3.9	4.5	14
1,2-Dichloroethene (total)	148	160	7.8
Ethylbenzene	0.58 J ²	0.63 J	8.3
Toluene	0.73 J	0.83 J	13
1,1,1-Trichloroethane	5.3	6.0	12
Trichloroethene	25.7	28.8	11
Vinyl chloride	61.2	69.5	13

<i>Analyte</i>	<i>Investigative Sample</i>	<i>Duplicate Sample</i>	<i>RPD</i>
	WS-6029-042911-017	WS-6029-042911-019	
cis-1,2-Dichloroethene	1.2	1.1	8.7
1,2-Dichloroethene (total)	1.2	1.1	8.7
Trichloroethene	0.35 J	0.33 J	5.9

¹ RPD - Relative Percent Difference

² J - Estimated concentration

ATTACHMENT D

ACETONE DETECTIONS IN SELECT WELLS

TABLE D.1
ACETONE CONCENTRATIONS AT SELECT WELLS - 2004 TO 2011
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO

<i>Sample Date</i>	<i>Well Designation</i>			
	<i>MW-108</i>	<i>MW-113</i>	<i>MW-209</i>	<i>MW-220</i>
October 2004	5.4 J	ND (10)	3.2 J	ND (10)
August 2005	ND (5)	ND (5)	15.6/15.8*	19.7
November 2005	NS	ND (5)	NS	NS
February 2006	ND (5)	ND (5)	14.7	ND (5)
August 2006	8.4	ND (5)	18.8	ND (5)
April 2007	ND (5)	ND (5)	ND (5)	ND (5)
November 2007	ND (5)	ND (5)	8.7	ND (5)
April 2008	5.7	ND (5)	18.7	23.5
November 2008	ND (5)	7.4	9.7	12.8
April 2009	3.8 J	ND (5)	14.4	ND (5)
June 2010	4.1 J	3.6 J	9.6/9.1*	13.8
April 2011	ND (10)	ND (10)	ND (10)	ND (10)

Notes:

All measurements are in micrograms per liter ($\mu\text{g}/\text{L}$)

NS = Not sampled

* = duplicate sample

J = Estimated concentration

The USEPA Regional Screening Level (RSL) for acetone in tap water is 22,000 $\mu\text{g}/\text{L}$

ATTACHMENT E

GROUNDWATER ELEVATIONS AND CONTOURS

TABLE E.1

GROUNDWATER LEVEL DATA SUMMARY
NOVEMBER 2005 TO APRIL 2011
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO

Well	Reference Elevation	Aquifer Unit	4-Oct-04		31-Jan-05		4-May-05		22-Aug-05		27-Sep-05		27-Oct-05		28-Nov-05		20-Feb-06		30-May-06	
	Elevation	Depth To Water	Elevation	Depth To Water	Elevation	Depth To Water	Elevation	Depth To Water	Elevation	Depth To Water	Elevation	Depth To Water	Elevation	Depth To Water	Elevation	Depth To Water	Elevation	Depth To Water	Elevation	
Water Table Unit Wells																				
MW-4	1,091.09	WTU	7.68	1,083.41	7.22	1,083.87	7.14	1,083.95	8.66	1,082.43	8.48	1,082.61	7.55	1,083.54	6.94	1,084.15	6.24	1,084.85	6.62	1,084.47
MW-11	1,095.93	WTU	13.32	1,082.61	13.29	1,082.64	13.02	1,082.91	12.72	1,083.21	10.44	1,085.49	9.33	1,086.60	9.92	1,086.01	9.49	1,086.44	9.57	1,086.36
MW-101	1,107.57	WTU	8.35	1,099.22	8.20	1,099.37	7.93	1,099.64	8.97	1,098.60	4.07	1,103.50	8.55	1,099.02	8.51	1,099.06	7.75	1,099.82	7.85	1,099.72
MW-102	1,100.17	WTU	4.96	1,095.21	4.98	1,095.19	4.12	1,096.05	5.52	1,094.65	5.61	1,094.56	5.13	1,095.04	4.72	1,095.45	4.04	1,096.13	4.04	1,096.13
MW-103	1,096.22	WTU	2.78	1,093.44	2.67	1,093.55	2.29	1,093.93	3.57	1,092.65	2.90	1,093.32	2.11	1,094.11	2.35	1,093.87	2.31	1,093.91	2.52	1,093.70
MW-104	1,099.81	WTU	16.70	1,083.11	18.21	1,081.60	17.29	1,082.52	16.10	1,083.71	13.94	1,085.87	16.48	1,083.33	13.38	1,086.43	12.82	1,086.99	12.91	1,086.90
MW-105	1,101.32	WTU	18.24	1,083.08	17.96	1,083.36	16.88	1,084.44	17.68	1,083.64	15.62	1,085.70	14.47	1,086.85	14.98	1,086.34	14.40	1,086.92	14.30	1,087.02
MW-106	1,102.88	WTU	18.58	1,084.30	18.79	1,084.09	17.25	1,085.63	18.45	1,084.43	17.17	1,085.71	15.97	1,086.91	16.04	1,086.84	15.28	1,087.60	15.37	1,087.51
MW-107	1,098.27	WTU	12.26	1,086.01	13.22	1,085.05	13.14	1,085.13	12.86	1,085.41	12.40	1,085.87	11.27	1,087.00	10.94	1,087.33	9.96	1,088.31	10.06	1,088.21
MW-108	1,091.96	WTU	9.44	1,082.52	9.12	1,082.84	8.81	1,083.15	8.78	1,083.18	8.66	1,083.30	5.50	1,086.46	5.98	1,085.98	5.90	1,086.06	5.85	1,086.11
MW-109	1,087.42	WTU	4.57	1,082.85	3.61	1,083.81	3.28	1,084.14	5.14	1,082.28	5.20	1,082.22	4.18	1,083.24	3.92	1,083.50	3.24	1,084.18	3.54	1,083.88
MW-110	1,086.87	WTU	8.28	1,078.59	5.47	1,081.40	5.25	1,081.62	11.22	1,075.65	11.74	1,075.13	11.44	1,075.43	10.75	1,076.12	6.68	1,080.19	7.13	1,079.74
MW-111	1,099.67	WTU	16.97	1,082.70	17.11	1,082.56	17.09	1,082.58	16.41	1,083.26	14.21	1,085.46	13.08	1,086.59	13.57	1,086.10	13.10	1,086.57	13.18	1,086.49
MW-113	1,088.46	WTU	7.77	1,080.69	7.14	1,081.32	6.93	1,081.53	8.00	1,080.46	7.26	1,081.20	5.17	1,083.29	6.61	1,081.85	5.42	1,083.04	5.88	1,082.58
MW-114	1,097.27	WTU	10.83	1,086.44	10.72	1,086.55	10.66	1,086.61	10.76	1,086.51	9.76	1,087.51	8.84	1,088.43	9.24	1,088.03	8.93	1,088.34	8.84	1,088.43
MW-115	1,101.83	WTU	18.73	1,083.10	18.04	1,083.79	17.37	1,084.46	18.84	1,082.99	17.90	1,083.93	17.25	1,084.58	17.55	1,084.28	17.16	1,084.67	17.20	1,084.63
MW-116	1,105.54	WTU	22.73	1,082.81	23.77	1,081.77	21.11	1,084.43	23.91	1,081.63	24.14	1,081.40	24.26	1,081.28	23.58	1,081.96	23.13	1,082.41	23.02	1,082.52
MW-117	1,123.97	WTU	44.78	1,079.19	44.83	1,079.14	43.94	1,080.03	48.36	1,075.61	47.53	1,076.44	42.44	1,081.53	44.25	1,079.72	41.95	1,082.02	42.74	1,081.23
MW-118	1,098.38	WTU	24.97	1,073.41	25.74	1,072.64	23.82	1,074.56	25.61	1,072.77	26.33	1,072.05	24.92	1,073.46	25.05	1,073.33	23.96	1,074.42	23.47	1,074.91
PZ-1	1,104.43	WTU	8.38	1,096.05	8.23	1,096.20	8.11	1,096.32	9.00	1,095.43	9.11	1,095.32	8.63	1,095.80	8.28	1,096.15	7.52	1,096.91	7.63	1,096.80
PZ-101	1,108.53	WTU	14.00	1,094.53	14.11	1,094.42	12.88	1,095.65	14.46	1,094.07	14.52	1,094.01	14.01	1,094.52	13.62	1,094.91	12.74	1,095.79	12.85	1,095.68
PZ-102	1,100.21	WTU	9.78	1,090.43	12.47	1,087.74	12.17	1,088.04	10.27	1,089.94	12.33	1,087.88	9.62	1,090.59	9.18	1,091.03	8.35	1,091.86	8.27	1,091.94
PZ-103	1,093.98	WTU	7.20	1,086.78	7.83	1,086.15	7.36	1,086.62	7.88	1,086.10	8.13	1,085.85	7.29	1,086.69	6.62	1,087.36	6.00	1,087.98	6.40	1,087.58
PZ-104	1,097.54	WTU	12.27	1,085.27	11.88	1,085.66	10.27	1,087.27	13.00	1,084.54	12.93	1,084.61	11.10	1,086.44	11.50	1,086.04	10.57	1,086.97	10.55	1,086.99
PZ-105	1,101.60	WTU	20.27	1,081.33	18.26	1,083.34	17.51	1,084.09	21.68	1,079.92	22.11	1,079.49	19.87	1,081.73	20.26	1,081.34	18.51	1,083.09	18.88	1,082.72
PZ-106	1,102.23	WTU	24.07	1,078.16	19.89	1,082.34	19.44	1,082.79	25.65	1,076.58	26.88	1,075.35	26.25	1,075.98	25.03	1,077.20	23.01	1,079.22	22.78	1,079.45
Upper Intermediate Unit Wells																				
MW-201	1,107.52	UIU	11.79	1,095.73	11.44	1,096.08	10.23	1,097.29	12.71	1,094.81	12.98	1,094.54	12.53							

TABLE E.1

**GROUNDWATER LEVEL DATA SUMMARY
NOVEMBER 2005 TO APRIL 2011
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO**

Well	Reference	Aquifer	14-Aug-06		20-Dec-06		25-May-07		12-Nov-07		15-Apr-08		4-Nov-08		20-Apr-09		2-Jun-10		29-Apr-11	
	Elevation	Unit	Depth To Water	Elevation																
Water Table Unit Wells																				
MW-4	1,091.09	WTU	7.55	1,083.54	6.55	1,084.54	7.36	1,083.73	8.47	1,082.62	6.31	1,084.78	8.57	1,082.52	6.22	1,084.87	6.48	1,084.61	11.91	1,088.14
MW-11	1,095.93	WTU	10.10	1,085.83	9.43	1,086.50	9.87	1,086.06	10.29	1,085.64	9.08	1,086.85	10.41	1,085.52	9.12	1,086.81	9.18	1,086.75	8.42	1,087.51
MW-101	1,107.57	WTU	8.61	1,098.96	7.81	1,099.76	8.51	1,099.06	9.04	1,098.53	7.43	1,100.14	9.51	1,098.06	7.48	1,100.09	7.43	1,100.14	6.81	1,100.76
MW-102	1,100.17	WTU	4.58	1,095.59	4.02	1,096.15	4.71	1,095.46	5.36	1,094.81	3.70	1,096.47	5.79	1,094.38	3.47	1,096.70	3.51	1,096.66	2.89	1,097.28
MW-103	1,096.22	WTU	3.38	1,092.84	2.40	1,093.82	2.89	1,093.33	2.94	1,093.28	2.00	1,094.22	3.16	1,093.06	1.78	1,094.44	2.07	1,094.15	1.82	1,094.40
MW-104	1,099.81	WTU	13.51	1,086.30	12.44	1,087.37	13.23	1,086.58	13.69	1,086.12	12.21	1,087.60	13.94	1,085.87	12.40	1,087.41	12.37	1,087.44	11.52	1,088.29
MW-105	1,101.32	WTU	15.08	1,086.24	14.29	1,087.03	14.89	1,086.43	15.34	1,085.98	13.92	1,087.40	15.61	1,085.71	14.03	1,087.29	14.06	1,087.26	13.21	1,088.11
MW-106	1,102.88	WTU	16.06	1,086.82	15.36	1,087.52	15.91	1,086.97	16.51	1,086.37	14.81	1,088.07	16.83	1,086.05	14.91	1,087.97	15.07	1,087.81	14.06	1,088.82
MW-107	1,098.27	WTU	10.64	1,087.63	9.98	1,088.29	10.91	1,087.36	11.63	1,086.64	9.64	1,088.63	12.21	1,086.06	9.77	1,088.50	10.06	1,088.21	8.69	1,089.58
MW-108	1,091.96	WTU	6.23	1,085.73	5.83	1,086.13	6.30	1,085.66	6.42	1,085.54	5.48	1,086.48	6.54	1,085.42	5.39	1,086.57	5.49	1,086.47	4.78	1,087.18
MW-109	1,087.42	WTU	4.42	1,083.00	3.54	1,083.88	4.34	1,083.08	5.69	1,081.73	3.09	1,084.33	6.35	1,081.07	2.93	1,084.49	3.51	1,083.91	2.68	1,084.74
MW-110	1,086.87	WTU	10.28	1,076.59	7.03	1,079.84	8.37	1,078.50	11.51	1,075.36	5.66	1,081.21	12.26	1,074.61	5.83	1,081.04	6.56	1,080.31	4.91	1,081.96
MW-111	1,099.67	WTU	13.75	1,085.92	13.16	1,086.51	13.52	1,086.15	13.91	1,085.76	12.72	1,086.95	14.12	1,085.55	12.76	1,086.91	12.81	1,086.86	12.03	1,087.64
MW-113	1,088.46	WTU	7.22	1,081.24	5.53	1,082.93	6.39	1,082.07	7.66	1,080.80	4.02	1,084.44	7.92	1,080.54	4.96	1,083.50	4.51	1,083.95	4.38	1,084.08
MW-114	1,097.27	WTU	9.94	1,087.33	8.82	1,088.45	9.39	1,087.88	9.63	1,087.64	8.28	1,088.99	10.11	1,087.16	8.09	1,089.18	8.10	1,089.17	7.66	1,089.61
MW-115	1,101.83	WTU	17.70	1,084.13	17.12	1,084.71	17.36	1,084.47	17.80	1,084.03	16.60	1,085.23	17.93	1,083.90	16.63	1,085.20	16.58	1,085.25	16.21	1,085.62
MW-116	1,105.54	WTU	22.96	1,082.58	22.98	1,082.56	23.26	1,082.28	23.88	1,081.66	21.92	1,083.62	24.46	1,081.08	22.14	1,083.40	22.39	1,083.15	21.58	1,083.96
MW-117	1,123.97	WTU	45.32	1,078.65	41.81	1,082.16	42.94	1,081.03	46.16	1,077.81	40.29	1,083.68	47.92	1,076.05	40.83	1,083.14	40.78	1,083.19	39.92	1,084.05
MW-118	1,098.38	WTU	25.06	1,073.32	23.44	1,074.94	24.11	1,074.27	26.21	1,072.17	23.13	1,075.25	27.51	1,070.87	23.43	1,074.95	23.48	1,074.90	22.61	1,075.77
PZ-1	1,104.43	WTU	8.09	1,096.34	7.60	1,096.83	8.32	1,096.11	8.88	1,095.55	6.91	1,097.52	9.27	1,095.16	6.61	1,097.82	6.96	1,097.47	5.85	1,098.58
PZ-101	1,108.53	WTU	13.37	1,095.16	12.77	1,095.76	13.46	1,095.07	14.13	1,094.40	12.35	1,096.18	14.51	1,094.02	12.22	1,096.31	12.34	1,096.19	11.61	1,096.92
PZ-102	1,100.21	WTU	8.83	1,091.38	8.29	1,091.92	9.02	1,091.19	9.92	1,090.29	7.92	1,092.29	10.36	1,089.85	7.92	1,092.29	8.03	1,092.18	7.19	1,093.02
PZ-103	1,093.98	WTU	7.14	1,086.84	6.34	1,087.64	7.16	1,086.82	8.75	1,085.23	6.35	1,087.63	9.43	1,084.55	6.12	1,087.86	6.52	1,087.92		
PZ-104	1,097.54	WTU	11.81	1,085.73	10.43	1,087.11	11.62	1,085.92	12.43	1,085.11	10.03	1,087.51	13.37	1,084.17	10.06	1,087.48	10.10	1,087.44	9.07	1,088.47
PZ-105	1,101.60	WTU	20.91	1,080.69	18.90	1,082.70	19.38	1,082.22	21.65	1,079.95	17.22	1,084.38	23.11	1,078.49	17.56	1,084.04	17.53	1,084.07	16.53	1,085.07
PZ-106	1,102.23	WTU	23.86	1,078.37	22.69	1,079.54	23.04	1,079.19	25.41	1,076.82	21.48	1,080.75	26.91	1,075.32	22.14	1,080.09	22.07	1,080.16	21.31	1,080.92
Upper Intermediate Unit Wells																				
MW-201	1,107.52	UIU	12.54	1,094.98	12.17	1,095.35	12.64	1,094.88	12.52	1,095.00	10.72	1,096.80	12.78	1,						

TABLE E.1

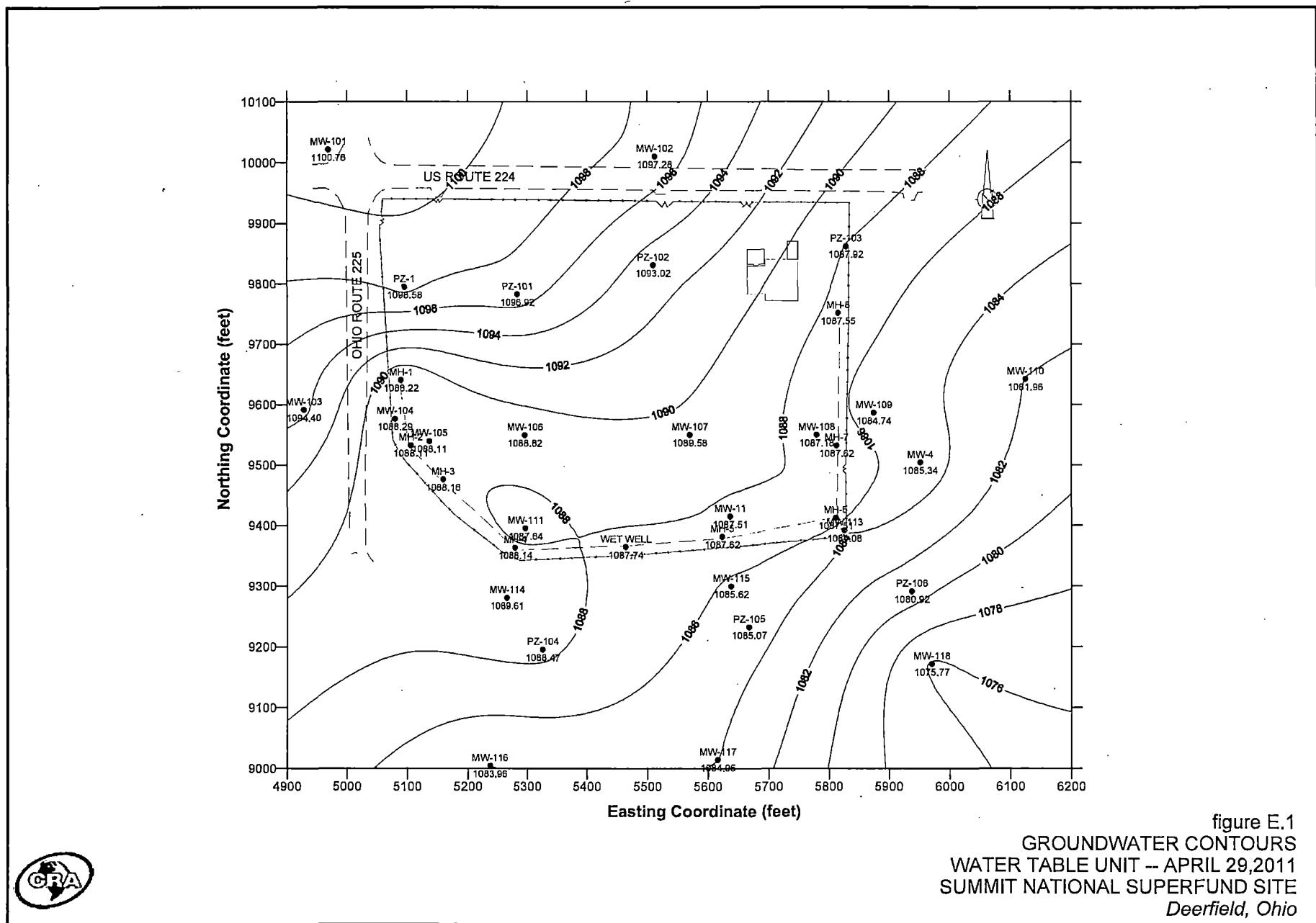
**GROUNDWATER LEVEL DATA SUMMARY
NOVEMBER 2005 TO APRIL 2011
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO**

Well	Reference	Aquifer	4-Oct-04		31-Jan-05		4-May-05		22-Aug-05		27-Sep-05		27-Oct-05		28-Nov-05		20-Feb-06		30-May-06	
	Elevation	Unit	Depth To Water	Elevation																
<i>Lower Intermediate Unit Wells</i>																				
MW-301	1,107.91	LIU	31.73	1,076.18	29.89	1,078.02	28.44	1,079.47	31.50	1,076.41	19.76	1,088.15	30.77	1,077.14	32.22	1,075.69	29.60	1,078.31	29.68	1,078.23
MW-302	1,100.39	LIU	29.76	1,070.63	27.63	1,072.76	27.19	1,073.20	29.57	1,070.82	24.02	1,076.37	28.72	1,071.67	28.96	1,071.43	26.92	1,073.47	26.37	1,074.02
MW-303	1,103.15	LIU	32.31	1,070.84	28.19	1,074.96	28.03	1,075.12	29.72	1,073.43	30.02	1,073.13	29.52	1,073.63	29.68	1,073.47	27.83	1,075.32	27.20	1,075.95
MW-304	1,097.73	LIU	17.17	1,080.56	16.33	1,081.40	15.88	1,081.85	17.45	1,080.28	17.01	1,080.72	16.98	1,080.75	16.92	1,080.81	15.52	1,082.21	15.77	1,081.96
MW-305	1,101.22	LIU	31.93	1,069.29	28.43	1,072.79	27.93	1,073.29	31.05	1,070.17	23.83	1,077.39	31.38	1,069.84	31.58	1,069.64	26.76	1,074.46	29.77	1,071.45
MW-306	1,103.14	LIU	33.61	1,069.53	29.24	1,073.90	29.15	1,073.99	30.93	1,072.21	33.70	1,069.44	31.52	1,071.62	31.40	1,071.74	33.43	1,069.71	31.64	1,071.50
MW-307	1,098.83	LIU	29.04	1,069.79	25.29	1,073.54	24.89	1,073.94	26.31	1,072.52	26.48	1,072.35	27.88	1,070.95	28.00	1,070.83	24.37	1,074.46	25.23	1,073.60
MW-309	1,087.81	LIU	17.95	1,069.86	15.04	1,072.77	14.27	1,073.54	15.94	1,071.87	15.48	1,072.33	16.91	1,070.90	17.20	1,070.61	13.36	1,074.45	14.62	1,073.19
MW-319	1,108.07	LIU	21.13	1,086.94	22.92	1,085.15	22.47	1,085.60	22.40	1,085.67	19.92	1,088.15	20.61	1,087.46	20.79	1,087.28	19.77	1,088.30	19.59	1,088.48
MW-320	1,091.14	LIU	20.23	1,070.91	20.64	1,070.50	20.10	1,071.04	20.52	1,070.62	20.09	1,071.05	20.47	1,070.67	20.27	1,070.87	19.49	1,071.65	19.63	1,071.51
MW-321	1,095.32	LIU	25.53	1,069.79	21.44	1,073.88	20.44	1,074.88	22.58	1,072.74	22.95	1,072.37	23.42	1,071.90	23.71	1,071.61	21.30	1,074.02	20.96	1,074.36
MW-322	1,098.88	LIU	17.45	1,081.43	16.82	1,082.06	16.26	1,082.62	20.45	1,078.43	16.43	1,082.45	15.32	1,083.56	17.20	1,081.68	15.78	1,083.10	16.04	1,082.84
MW-323	1,097.51	LIU	29.12	1,068.39	25.08	1,072.43	24.83	1,072.68	27.06	1,070.45	26.25	1,071.26	26.98	1,070.53	25.88	1,071.63	24.47	1,073.04	24.08	1,073.43
MW-324	1,089.39	LIU	18.15	1,071.24	18.21	1,071.18	18.26	1,071.13	18.18	1,071.21	17.60	1,071.79	17.72	1,071.67	17.15	1,072.24	16.07	1,073.32	16.35	1,073.04
PZ-301	1,100.07	LIU	20.20	1,079.87	19.04	1,081.03	18.89	1,081.18	20.81	1,079.26	19.41	1,080.66	19.84	1,080.23	19.77	1,080.30	18.51	1,081.56	18.40	1,081.67
PZ-302	1,101.25	LIU	31.74	1,069.51	28.94	1,072.31	28.83	1,072.42	28.48	1,072.77	28.83	1,072.42	30.80	1,070.45	30.68	1,070.57	26.64	1,074.61	28.21	1,073.04
PZ-303	1,098.39	LIU	29.78	1,068.61	25.07	1,073.32	24.94	1,073.45	26.46	1,071.93	20.61	1,077.78	26.62	1,071.77	26.03	1,072.36	23.81	1,074.58	23.73	1,074.66
PZ-305	1,096.49	LIU	27.17	1,069.32	22.71	1,073.78	22.27	1,074.22	24.00	1,072.49	24.47	1,072.02	24.58	1,071.91	24.32	1,072.17	22.06	1,074.43	21.94	1,074.55
PZ-306	1,088.35	LIU	15.70	1,072.65	16.05	1,072.30	14.92	1,073.43	16.32	1,072.03	16.12	1,072.23	16.26	1,072.09	17.28	1,071.07	14.58	1,073.77	14.57	1,073.78
PZ-307	1,091.40	LIU	16.64	1,074.76	17.85	1,073.55	17.25	1,074.15	17.47	1,073.93	17.37	1,074.03	17.58	1,073.82	28.00	1,063.40	14.89	1,076.51	15.22	1,076.18
<i>Upper Sharon Unit Wells</i>																				
MW-401	1,099.75	USU	35.45	1,064.30	35.19	1,064.56	34.88	1,064.87	35.30	1,064.45	34.59	1,065.16	35.40	1,064.35	34.59	1,065.16	33.40	1,066.35	33.38	1,066.37
MW-402	1,089.90	USU	32.26	1,057.64	33.68	1,056.22	31.94	1,057.96	31.88	1,058.02	34.05	1,055.85	33.61	1,056.29	33.18	1,056.72	31.70	1,058.20	31.17	1,058.73
MW-414	1,096.99	USU	25.09	1,071.90	25.10	1,071.89	24.03	1,072.96	24.96	1,072.03	24.46	1,072.53	25.17	1,071.82	24.82	1,072.17	23.82	1,073.17	24.15	1,072.84
MW-415	1,102.25	USU	33.92	1,068.33	28.86	1,073.39	28.42	1,073.83	31.17	1,071.08	30.20	1,072.05	31.84	1,070.41	30.97	1,071.28	28.07	1,074.18	29.55	1,072.70
MW-420	1,091.66	USU	29.44	1,062.22	28.78	1,062.88	28.07	1,063.59	29.21	1,062.45	29.15	1,062.51	29.27	1,062.39	28.96	1,062.70	27.44	1,064.22	26.74	1,064.92
MW-421	1,099.93	USU	28.82	1,071.11	29.04	1,070.89	28.67	1,071.26	29.11	1,070.82	29.41	1,070.52	29.05	1,070.88	28.79	1,071.14	28.00	1,071.93	28.20	1,071.73
MW-422	1,107.38	USU	23.63	1,083.75	21															

TABLE E.1

**GROUNDWATER LEVEL DATA SUMMARY
NOVEMBER 2005 TO APRIL 2011
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO**

Well	Reference	Aquifer	14-Aug-06		20-Dec-06		25-May-07		12-Nov-07		15-Apr-08		4-Nov-08		20-Apr-09		2-Jun-10		29-Apr-11	
	Elevation	Unit	Depth To Water	Elevation																
Lower Intermediate Unit Wells																				
MW-301	1,107.91	LIU	31.57	1,076.34	29.60	1,078.31	31.06	1,076.85	30.78	1,077.13	27.25	1,080.66	32.20	1,075.71	27.61	1,080.30	27.98	1,079.93	26.93	1,080.98
MW-302	1,100.39	LIU	29.20	1,071.19	26.35	1,074.04	29.12	1,071.27	28.27	1,072.12	24.17	1,076.22	30.48	1,069.91	24.49	1,075.90	25.28	1,075.11	24.32	1,076.07
MW-303	1,103.15	LIU	29.46	1,073.69	27.60	1,075.55	30.03	1,073.12	29.05	1,074.10	24.94	1,078.21	31.53	1,071.62	25.33	1,077.82	25.78	1,077.37	24.40	1,078.75
MW-304	1,097.73	LIU	16.77	1,080.96	15.58	1,082.15	17.93	1,079.80	17.32	1,080.41	13.39	1,084.34	18.50	1,079.23	14.22	1,083.51	14.79	1,082.94	13.69	1,084.04
MW-305	1,101.22	LIU	28.73	1,072.49	29.70	1,071.52	28.12	1,073.10	28.06	1,073.16	27.32	1,073.90	29.73	1,071.49	27.58	1,073.64	24.82	1,076.40	23.29	1,077.93
MW-306	1,103.14	LIU	30.03	1,073.11	31.61	1,071.53	31.51	1,071.63	30.46	1,072.68	26.08	1,077.06	32.52	1,070.62	26.54	1,076.60	27.22	1,075.92	25.68	1,077.46
MW-307	1,098.83	LIU	26.08	1,072.75	25.06	1,073.77	26.28	1,072.55	25.62	1,073.21	21.71	1,077.12	27.59	1,071.24	21.85	1,076.98	22.38	1,076.45	20.91	1,077.92
MW-309	1,087.81	LIU	15.05	1,072.76	14.22	1,073.59	15.15	1,072.66	14.61	1,073.20	11.27	1,076.54	16.48	1,071.33	11.37	1,076.44	11.42	1,076.39	9.96	1,077.85
MW-319	1,108.07	LIU	20.50	1,087.57	19.93	1,088.14	22.09	1,085.98	20.68	1,087.39	18.43	1,089.64	20.91	1,087.16	19.12	1,088.95	19.02	1,089.05	18.16	1,089.91
MW-320	1,091.14	LIU	19.80	1,071.34	19.60	1,071.54	20.69	1,070.45	20.48	1,070.66	18.38	1,072.76	20.48	1,070.66	18.53	1,072.61	18.78	1,072.36	18.16	1,072.98
MW-321	1,095.32	LIU	22.48	1,072.84	20.93	1,074.39	22.75	1,072.57	22.00	1,073.32	17.94	1,077.38	24.07	1,071.25	18.21	1,077.11	18.76	1,076.56	17.30	1,078.02
MW-322	1,098.88	LIU	16.20	1,082.68	15.97	1,082.91	16.61	1,082.27	16.22	1,082.66	12.58	1,086.30	17.09	1,081.79	13.93	1,084.95	14.11	1,084.77	13.12	1,085.76
MW-323	1,097.51	LIU	25.70	1,071.81	23.97	1,073.54	27.42	1,070.09	26.25	1,071.26	20.77	1,076.74	28.99	1,068.52	21.53	1,075.98	22.18	1,075.33	20.46	1,077.05
MW-324	1,089.39	LIU	17.17	1,072.22	16.29	1,073.10	18.03	1,071.36	18.21	1,071.18	14.79	1,074.60	19.32	1,070.07	15.07	1,074.32	15.76	1,073.63	14.71	1,074.68
PZ-301	1,100.07	LIU	19.91	1,080.16	18.69	1,081.38	21.12	1,078.95	20.63	1,079.44	16.59	1,083.48	21.86	1,078.21	17.45	1,082.62	18.33	1,081.74	17.03	1,083.04
PZ-302	1,101.25	LIU	28.32	1,072.93	28.07	1,073.18	28.51	1,072.74	27.91	1,073.34	24.00	1,077.25	29.86	1,071.39	24.18	1,077.07	24.69	1,076.56	23.21	1,078.04
PZ-303	1,098.39	LIU	25.53	1,072.86	23.66	1,074.73	25.88	1,072.51	25.23	1,073.16	21.03	1,077.36	27.40	1,070.99	21.42	1,076.97	22.00	1,076.39	20.48	1,077.91
PZ-305	1,096.49	LIU	23.75	1,072.74	21.90	1,074.59	24.22	1,072.27	23.37	1,073.12	19.28	1,077.21	25.48	1,071.01	19.54	1,076.95	20.07	1,076.42	18.58	1,077.91
PZ-306	1,088.35	LIU	14.93	1,073.42	14.50	1,073.85	17.07	1,071.28	16.27	1,072.08	12.91	1,075.44	16.00	1,072.35	12.98	1,075.37	13.33	1,075.02	12.73	1,075.62
PZ-307	1,091.40	LIU	15.62	1,075.78	15.08	1,076.32	18.28	1,073.12	17.31	1,074.09	12.40	1,079.00	17.15	1,074.25	12.64	1,078.76	13.11	1,078.29	12.17	1,079.23
Upper Sharon Unit Wells																				
MW-401	1,099.75	USU	33.00	1,066.75	33.32	1,066.43	33.39	1,066.36	32.72	1,067.03	30.63	1,069.12	31.82	1,067.93	29.65	1,070.10	29.69	1,070.06	29.38	1,070.37
MW-402	1,089.90	USU	30.32	1,059.58	31.14	1,058.76	29.22	1,060.68	29.21	1,060.69	28.32	1,061.58	28.36	1,061.54	27.83	1,062.07	27.37	1,062.53	26.92	1,062.98
MW-414	1,096.99	USU	24.18	1,072.81	24.11	1,072.88	25.10	1,071.89	24.76	1,072.23	22.56	1,074.43	25.04	1,071.95	22.67	1,074.32	22.88	1,074.11	22.11	1,074.88
MW-415	1,102.25	USU	29.46	1,072.79	29.38	1,072.87	30.83	1,071.42	29.98	1,072.27	26.64	1,075.61	31.92	1,070.33	27.21	1,075.04	26.78	1,075.47	25.26	1,076.99
MW-420	1,091.66	USU	26.63	1,065.03	26.88	1,064.78	26.46	1,065.20	26.36	1,065.30	34.96	1,056.70	25.92	1,065.74	24.76	1,066.90	24.82	1,066.84	24.58	1,067.08
MW-421	1,099.93	USU	28.36	1,071.57	27.96	1,071.97	29.25	1,070.68	29.02	1,070.91	27.01	1,072.92	29.07	1,070.86	27.04	1,072.89	27.27	1,072.66	26.71	1,073.22
MW-422	1,107.38																			



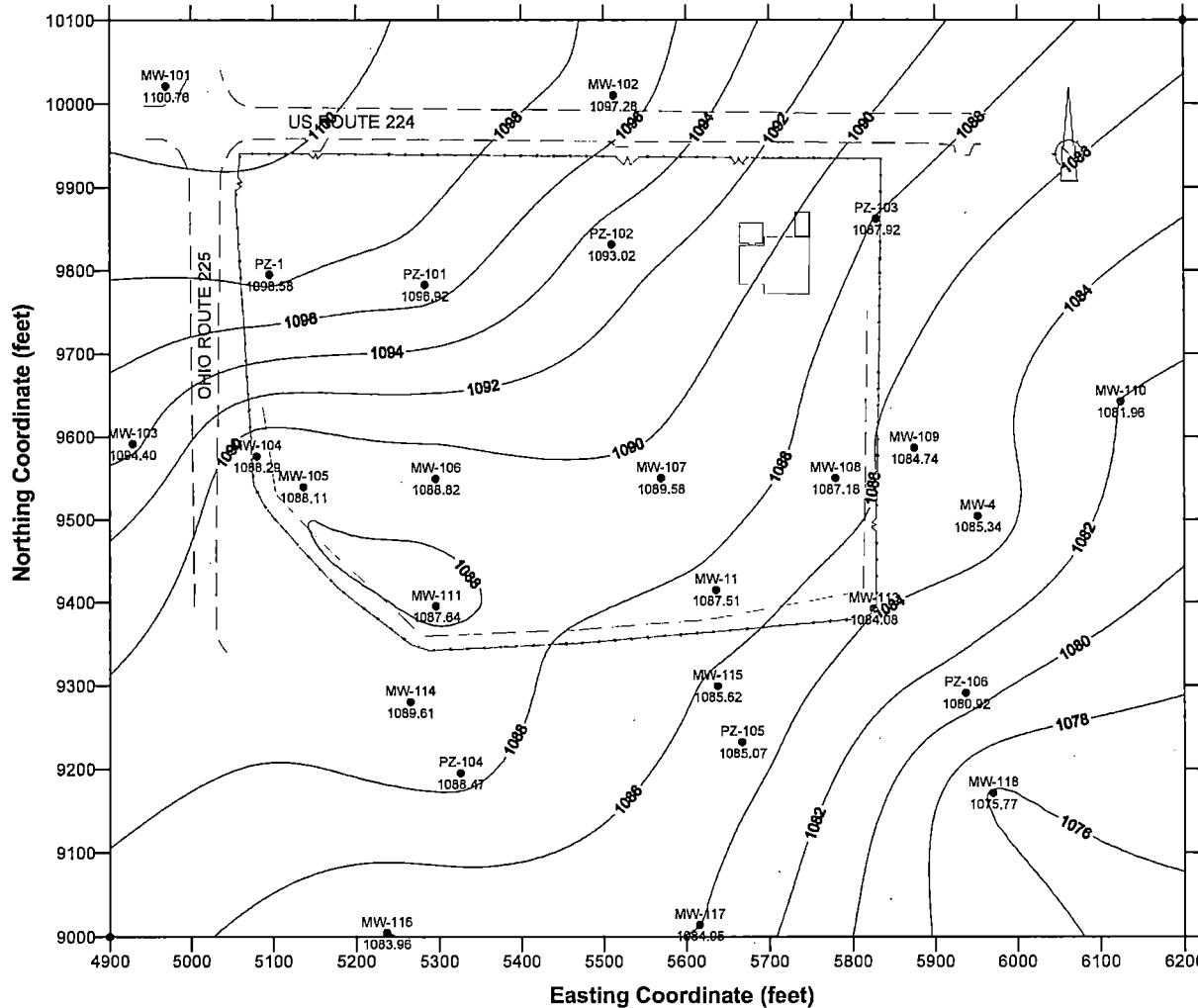


figure E.2
GROUNDWATER CONTOURS
WATER TABLE UNIT (w/o MANHOLES) -- APRIL 29, 2011
SUMMIT NATIONAL SUPERFUND SITE
Deerfield, Ohio



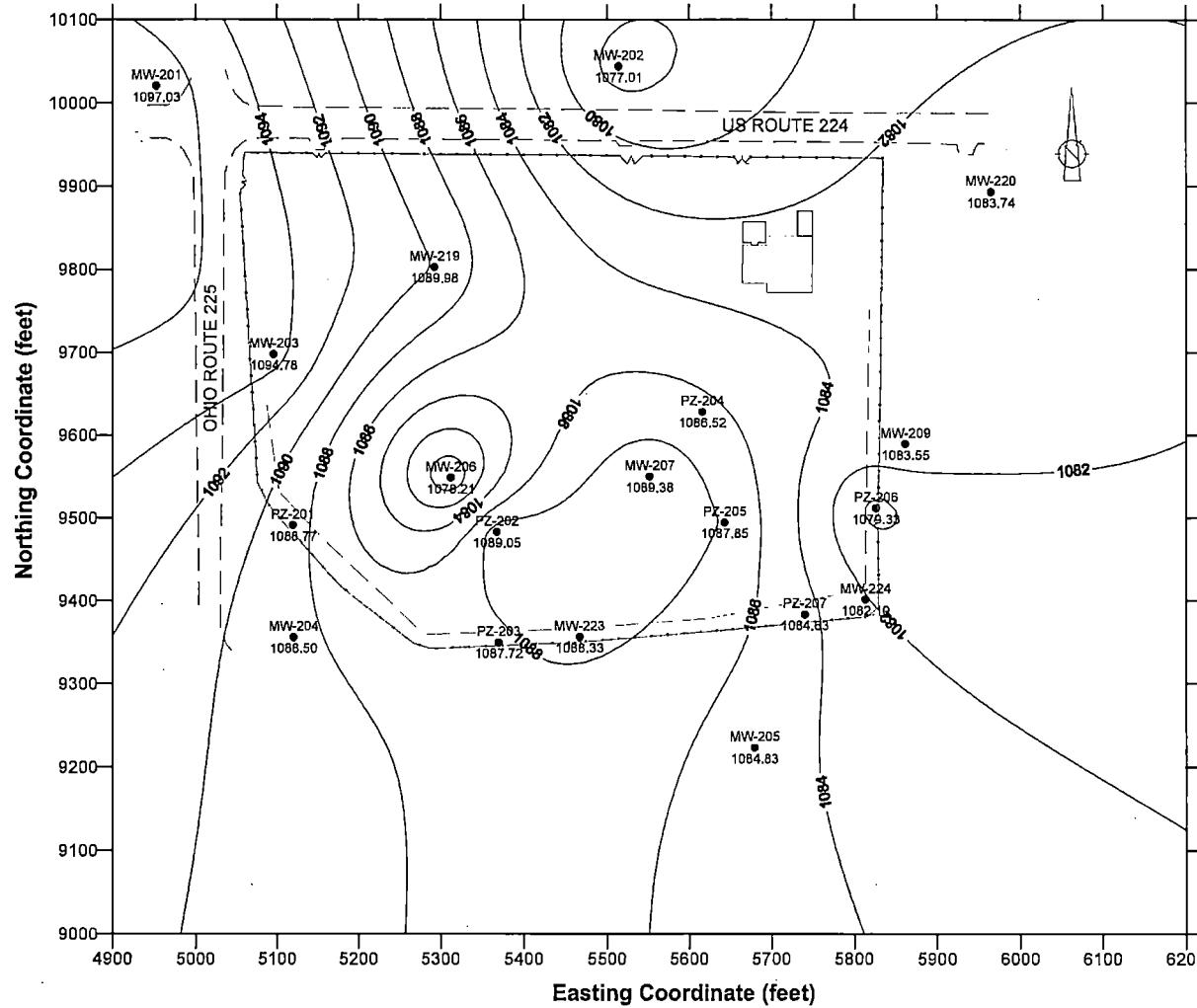


figure E.3
GROUNDWATER CONTOURS
UPPER INTERMEDIATE UNIT -- APRIL 29, 2011
SUMMIT NATIONAL SUPERFUND SITE
Deerfield, Ohio



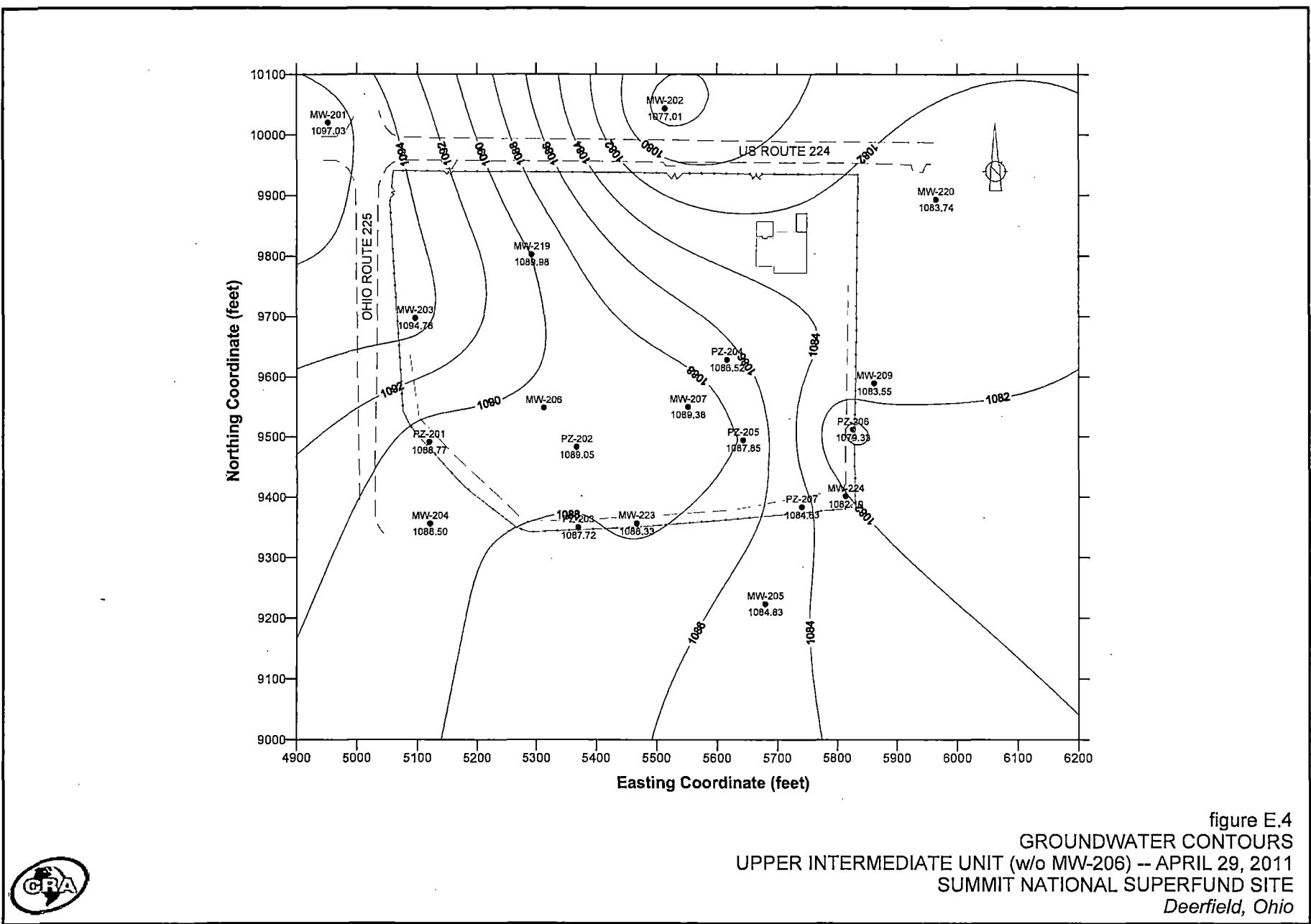


figure E.4
GROUNDWATER CONTOURS
 UPPER INTERMEDIATE UNIT (w/o MW-206) -- APRIL 29, 2011
 SUMMIT NATIONAL SUPERFUND SITE
Deerfield, Ohio

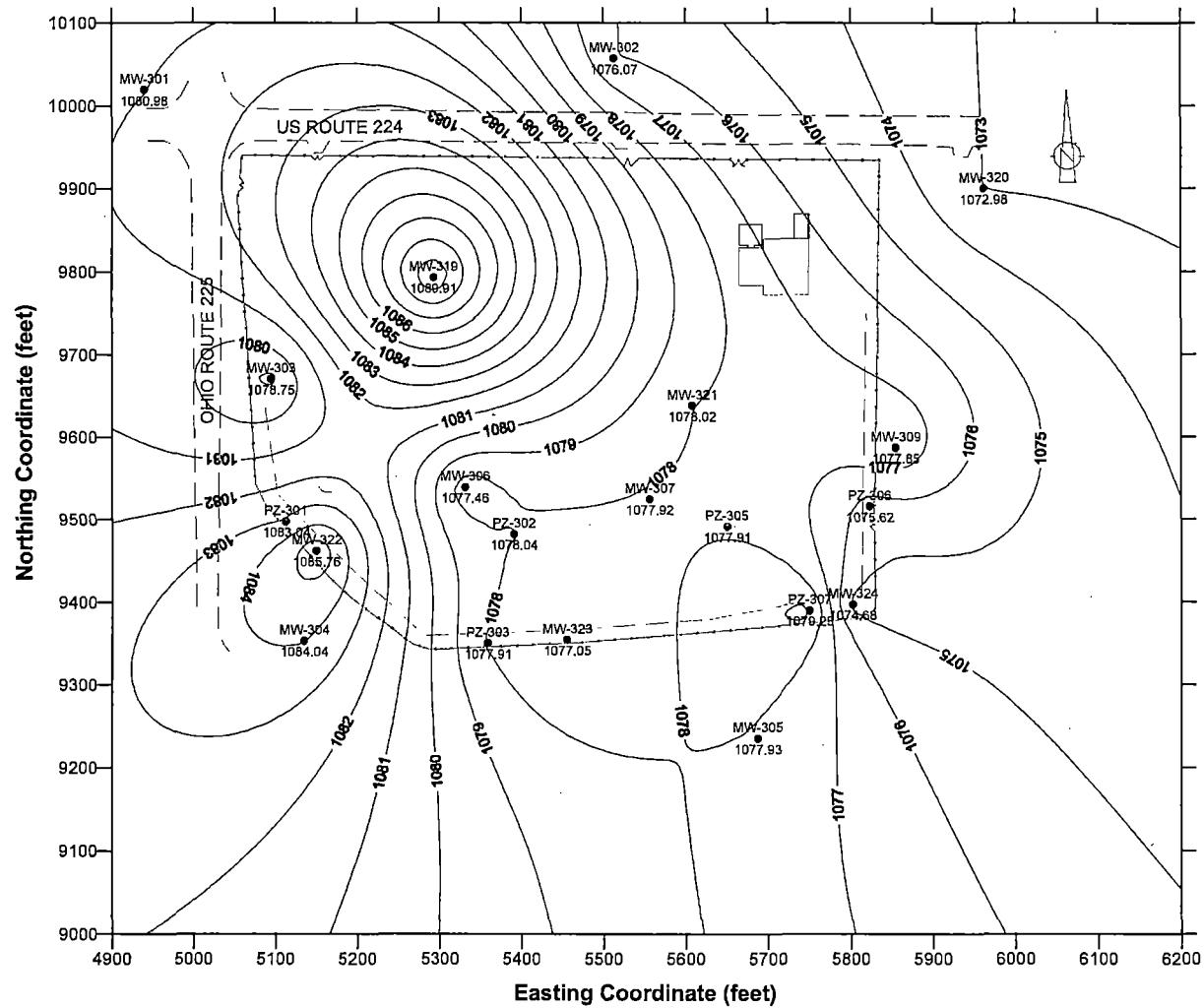


figure E.5
GROUNDWATER CONTOURS
LOWER INTERMEDIATE UNIT -- APRIL 29, 2011
SUMMIT NATIONAL SUPERFUND SITE
Deerfield, Ohio



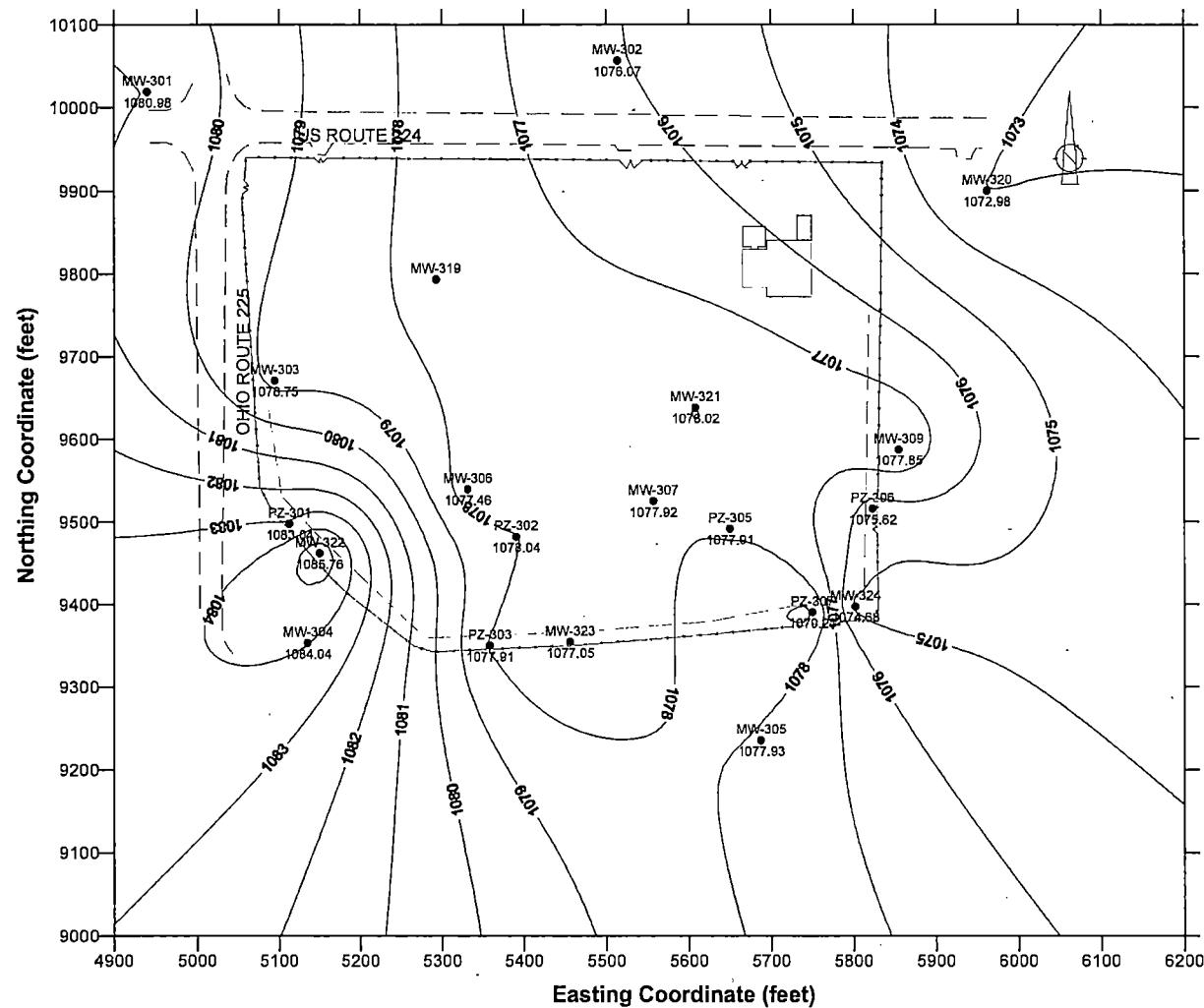


figure E.6

GROUNDWATER CONTOURS

LOWER INTERMEDIATE UNIT - (w/o MW-319) -- APRIL 29, 2011

SUMMIT NATIONAL SUPERFUND SITE

Deerfield, Ohio



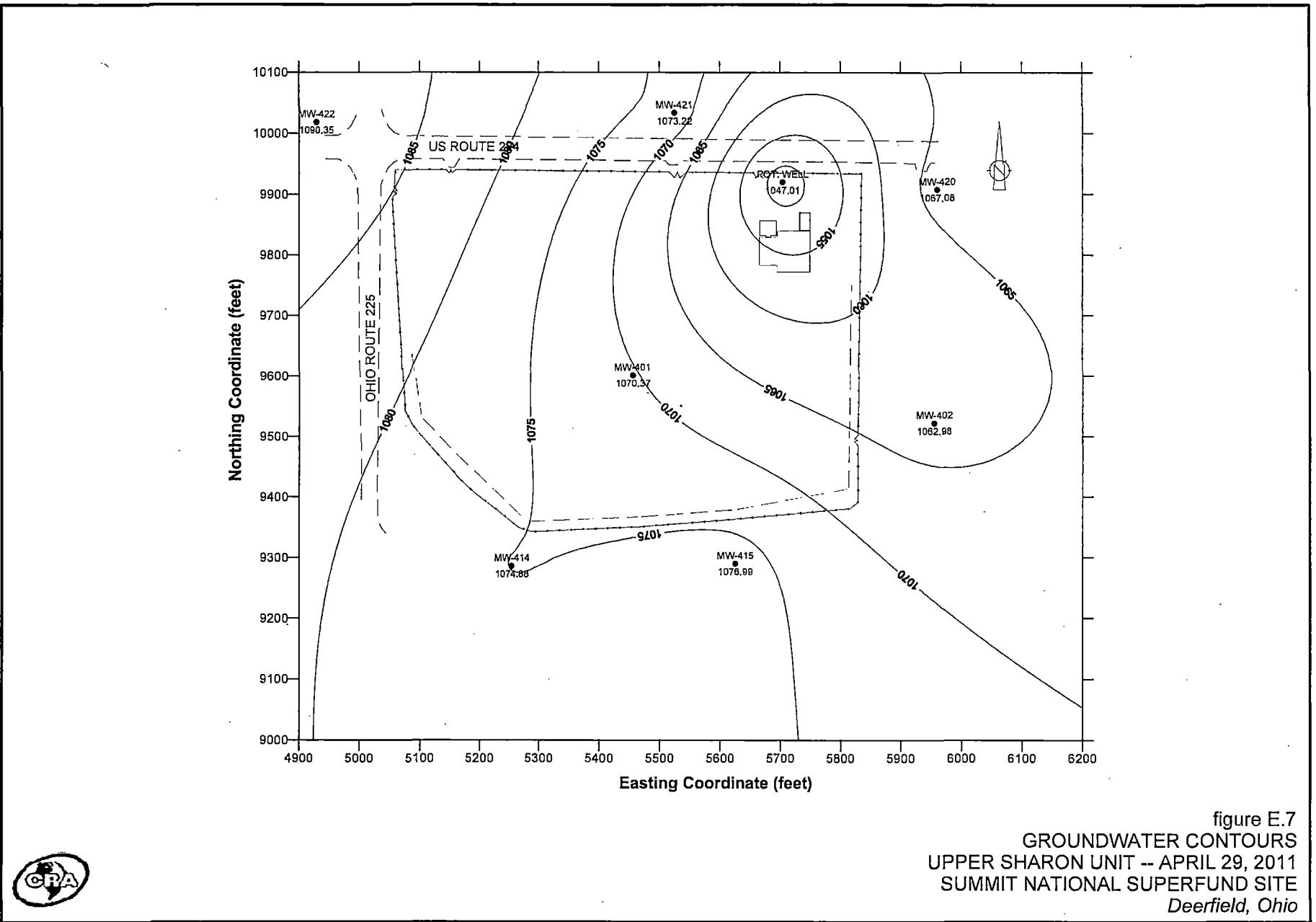


figure E.7
GROUNDWATER CONTOURS
UPPER SHARON UNIT -- APRIL 29, 2011
SUMMIT NATIONAL SUPERFUND SITE
Deerfield, Ohio



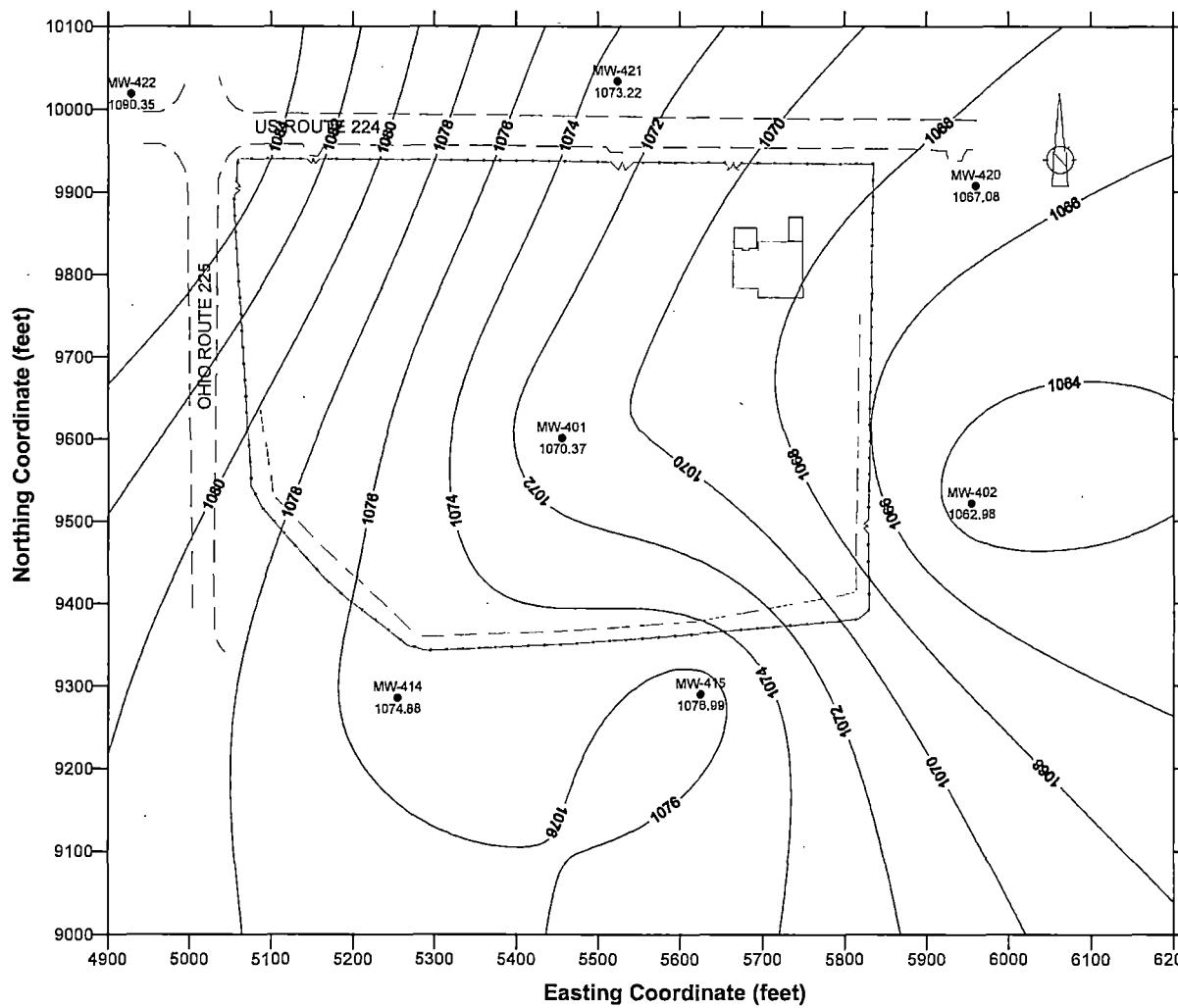


figure E.8
GROUNDWATER CONTOURS
 UPPER SHARON UNIT (w/o POTABLE WELL) -- APRIL 29, 2011
 SUMMIT NATIONAL SUPERFUND SITE
Deerfield, Ohio



ATTACHMENT F

SURFACE WATER VOC DETECTION SUMMARY (2004-2011)

TABLE F.1
DETECTED VOCs IN SURFACE WATER - 2004 TO 2011
CONFLUENCE OF SOUTH & EAST DRAINAGE DITCHES
SUMMIT NATIONAL SUPERFUND SITE
DEERFIELD, OHIO

<i>Parameters</i>	<i>Sample Dates and Concentrations</i>							
	<i>October 2004</i>	<i>August 2005</i>	<i>August 2006</i>	<i>April 2007</i>	<i>April 2008</i>	<i>April 2009</i>	<i>June 2010</i>	<i>April 2011</i>
Acetone	ND (10)/ND (10) *	ND (5)	ND (5)/ND (5) *	ND (5)/ND (5) *	ND (5)/ND (5) *	ND (5)	7.3/6.7 *	ND (10)/ND (10) *
cis-1,2-Dichloroethene	ND (1)/ND (1) *	ND (1)	0.44 J/0.43 J *	0.90 J/0.88 J *	1.3/1.2 *	0.51 J	ND (1)/0.28 J *	1.2/1.1 *
Carbon disulfide	ND (2)/ND (2) *	0.42 J	ND (2) U/ND (2) *	ND (2)/ND (2) *	ND (2)/ND (2) *	ND (2)	ND (2)/ND (2) *	ND (2.0)/ND (2.0) *
Trichloroethene	ND (1)/ND (1) *	ND (1)	ND (1)/ND (1) *	0.45 J/0.46 J *	0.53 J/0.49 J *	ND (1)	ND (1)/ND (1) *	0.35 J /0.33 J *

Notes:

All measurements are in micrograms per liter ($\mu\text{g/L}$)

VOCs = Volatile organic compounds

NA = Not Analyzed

* = duplicate sample

J = Estimated concentration

U = Not present at or above the associated value

The USEPA Regional Screening Level (RSL) for acetone in tap water is 22,000 $\mu\text{g/L}$